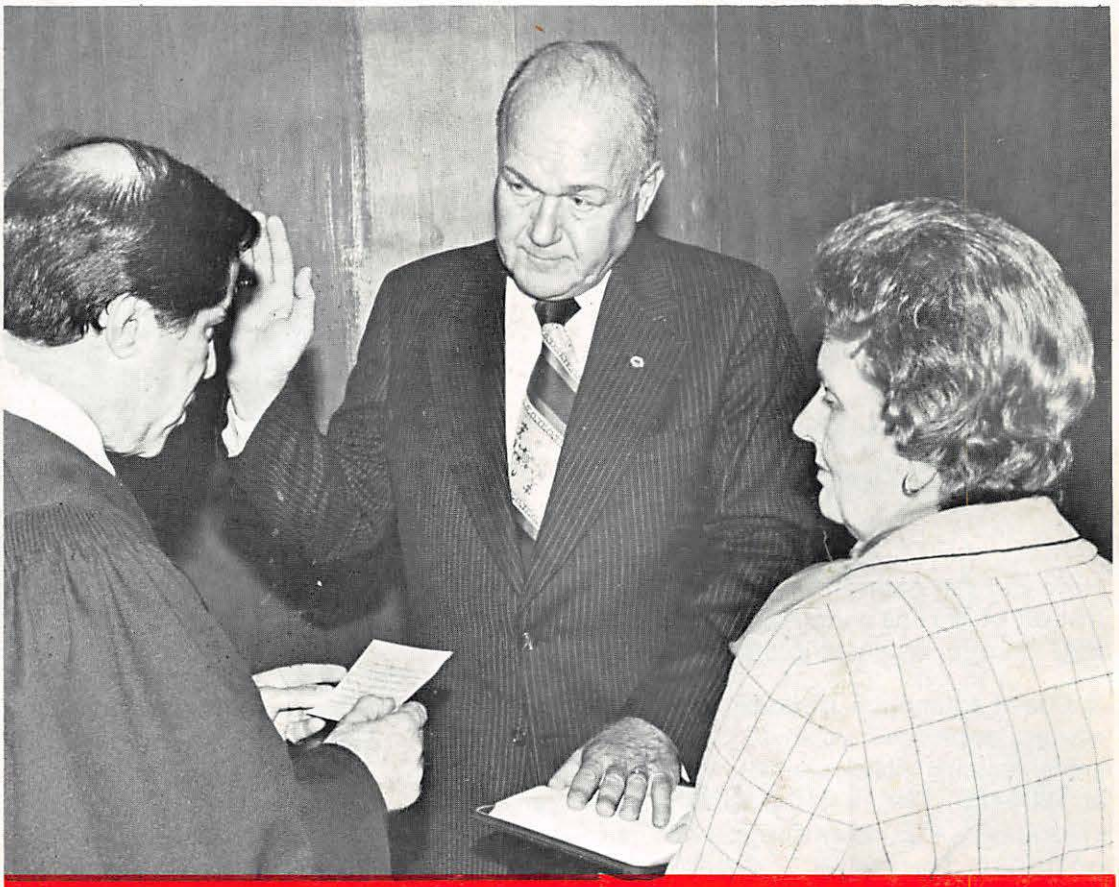
The SIGNALMAN'S Journal



C. J. Chamberlain is sworn in as labor member, Railroad Retirement Board. Secretary-Treasurer R. T. Bates is elected president of the Brotherhood of Railroad Signalmen.

OCTOBER 1977

NAME OUR MAN

NEW GRS CODED FREQUENCY SHIFT OVERLAY COMMUNICATION CIRCUITS

Control Wayside Signals via Rails
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Now you can control wayside signals via the rails -- instead of via line wires -- with the new GRS coded FSO circuits. Insulated joints are not required.

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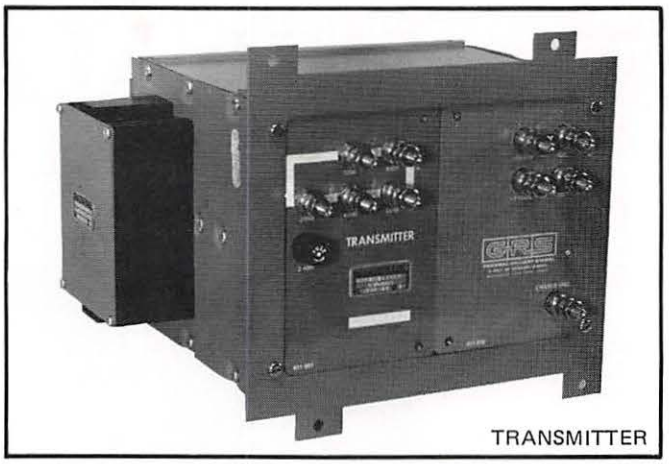

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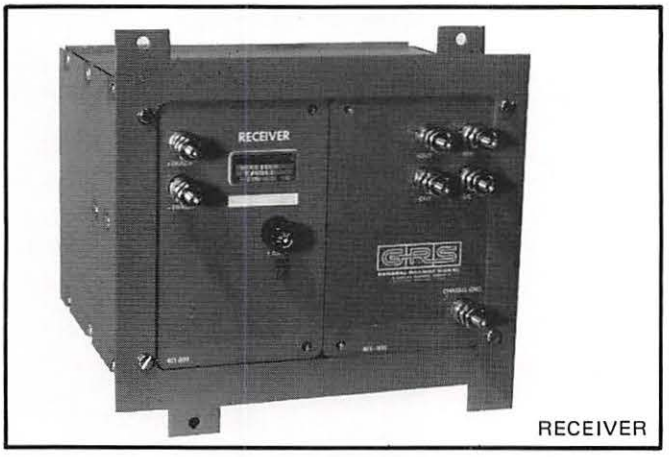

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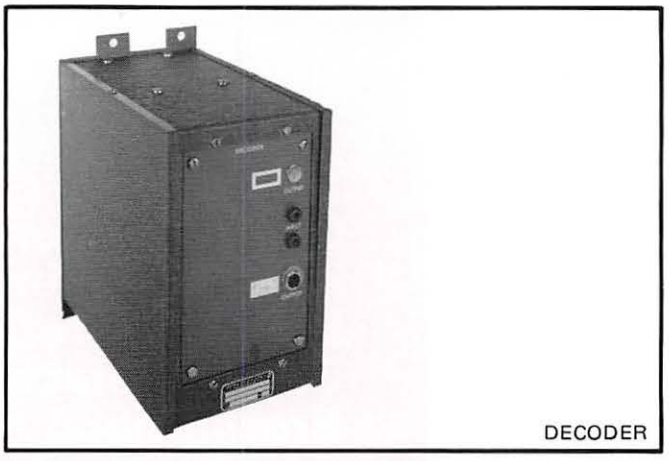
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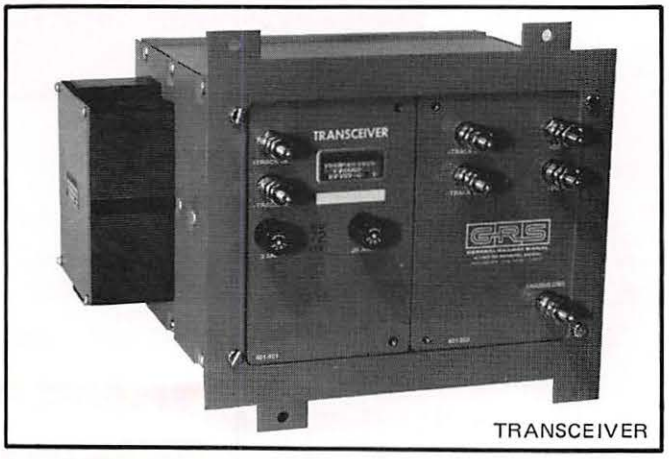

TRANSCEIVER

Volume 58 Number 8 October 1977

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COVER: U.S. federal judge Nicholas J. Bua (left) gives the oath of office to C. J. Chamberlain (center) newly appointed labor member Railroad Retirement Board, as Mrs. Joyce Chamberlain (right) holds a family bible. Swearing-in ceremony took place at the Retirement Board's boardroom at 844 Rush Street in Chicago, IL., on October 25, 1977.

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Chamberlain's Message

Thank you for your support and cooperation during my presidency

On September 30, 1977, I formally submitted my resignation as President of the Brotherhood of Railroad Signalmen to become effective October 25, 1977. As most of you know, my resignation became necessary as a result of my appointment by President Carter to serve as Labor Member on the Railroad Retirement Board, succeeding Neil Speirs who retired effective July 31, 1977.

With the writing of this message I will have written 100 reports to the membership in our Signalman's Journal since assuming the office of President of the Brotherhood of Railroad Signalmen on October 1, 1967. Let me assure you that without question this is the most difficult message for me to prepare.

During the past ten years when I have been privileged to serve as your President, our Brotherhood has been through some trying times which ran the complete gamut of matters ranging from serious representation threats to crisis strike situations and even a national strike.

We have on occasion experienced serious internal problems which at times seemed insurmountable. We have been through the book so to speak, and despite all of the trying experiences during the past ten years, we have prospered to the point where today we are a strong, financially sound organization that without question ranks second to none in service to its membership.

The past ten years have been good for our organization and its membership and the successes we have experienced have come about primarily because we are an involved organization. An organization whose voice is heard on each and every matter affecting not only our membership, but the entire rail labor movement.

We have had a total team effort which includes every segment of our operation from the individual members to local officers, general committee officers, Grand Lodge Officers and our Grand Lodge staff, all dedicated to one objective — the enhancement of signal employes engaged in one of the most complex and challenging occupations in the railroad industry.

We have worked with our sister unions and their assistance and support have contributed immeasurably to the achievements of the Brotherhood of Railroad Signalmen during the past ten years.

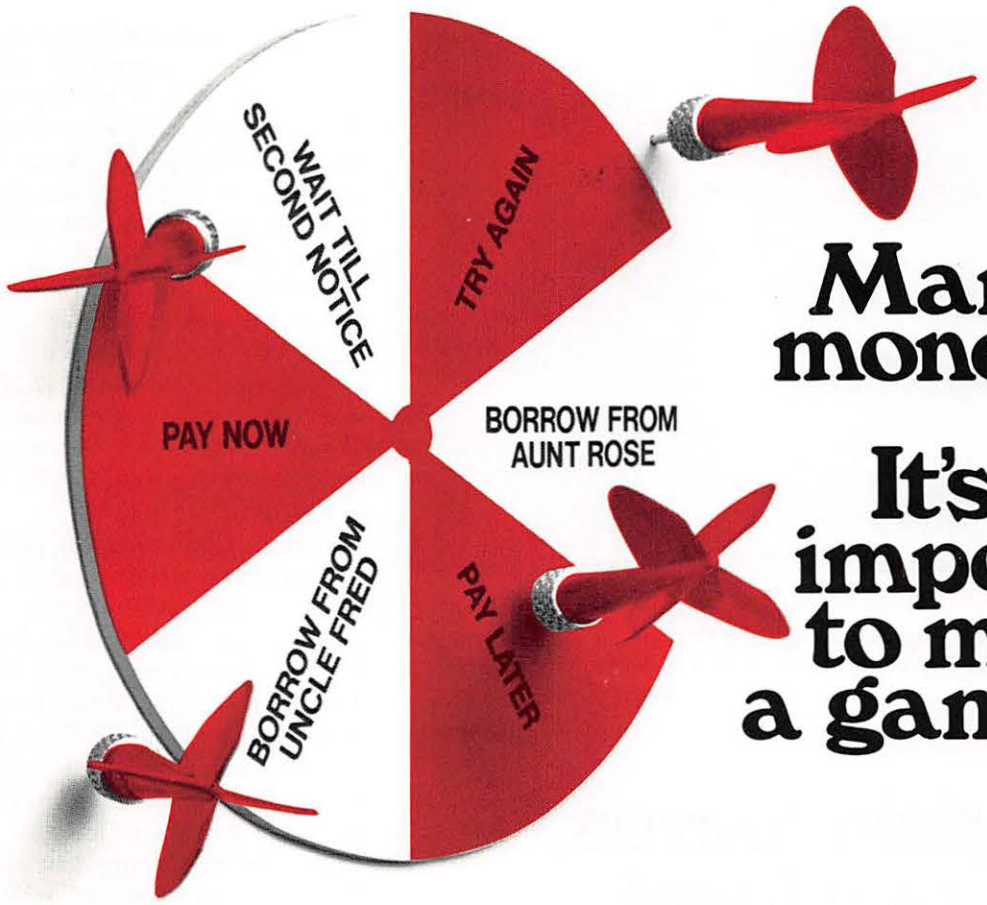
Serving as your President has been most rewarding and satisfying to me, notwithstanding the fact that we still have and always will have problems which must be faced and resolved now and in the future.

The Brotherhood of Railroad Signalmen has a strong foundation and with your complete support and cooperation to the new leadership, I am confident it will continue to grow and prosper in the future years.

In leaving the B. of R. S. to serve rail labor in the capacity of Labor Member on the Railroad Retirement Board, I have experienced many emotional moments, as the twenty years of service to Grand Lodge since 1957 in the capacities of Grand Lodge Representative, Secretary-Treasurer and President, have afforded me the privilege and opportunity to meet, work with and serve the finest group of loyal, dedicated, trade unionists and their families.

Mrs. Chamberlain and I, and our family, want to take this opportunity to thank each and every one of you — our members, our local and general committee officers, our Grand Lodge officers and Grand Lodge staff — for your support and cooperation and the many courtesies that have been extended to us throughout the years.

May God continue to guide this organization in the future as in the past and may each of us rededicate ourselves to strive to become better citizens, better employes, better union members and most important rededicate ourselves to the most rewarding occupation in existence today, that of helping and caring for our fellow men. God Bless you all and may the signals guiding each of you display a high green and a clear track ahead.



Managing money.

It's too important to make a game of it.

With some people, it's hit or miss.

Even for the vast majority of us who take our financial obligations seriously, balancing a budget isn't easy. Just when you think you've found the answer, inflation takes another bite out of your paycheck. And everything starts costing more. Putting the kids through school. Food. Clothes. A better home. Or even new appliances. Sometimes it makes you wonder if you ever can get ahead. No matter how hard you try.

Take an opportunity, not a chance.

Fortunately, there is someone you can turn to for help. Your Credit Union. Our business is helping people get more out of their money. We can help you save. Help you borrow. And, if you like, we can even show you how to avoid future money problems by suggesting practical strategies that really work.

We play it straight.

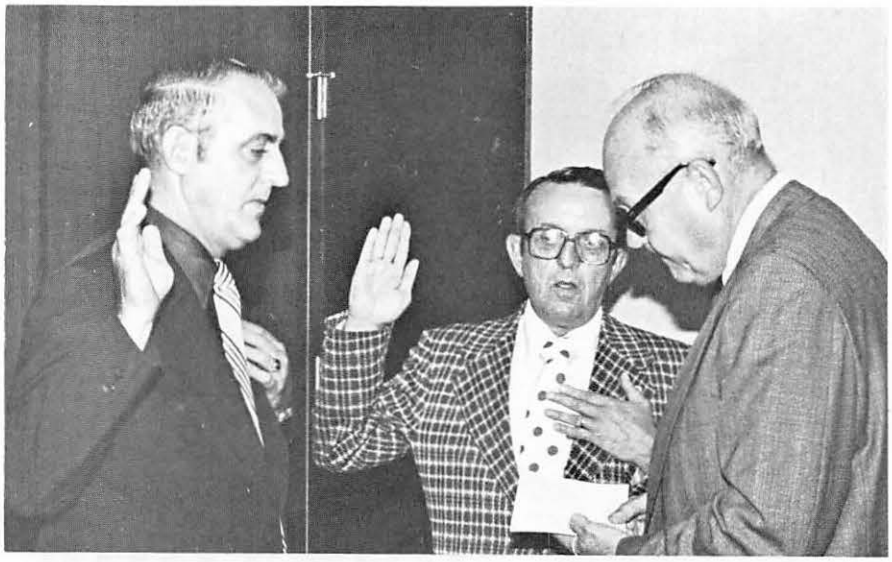
Too many organizations try to use personal financial counseling as a way to sell other services. A consolidation loan. A fee. A gimmicky savings account. Your credit union doesn't operate that way. Our financial counseling is free to each member. No strings attached.

We'll keep it confidential too.

Your business is nobody else's business. We don't gossip. Or send your name to anybody. Or turn you over to somebody who charges you for their help. We believe in being private. Practical, professional counseling. It's free for the asking at your credit union.

Discover your credit union. We're doing more for you.

For information, please write your state's credit union league or CUNA, P O Box 431, Madison, WI, 53701.



R. T. Bates (left) and W. D. Best (center) receive their obligations from C. J. Chamberlain. Bates was elected president succeeding Chamberlain who resigned to become labor member of the Railroad Retirement Board. Bates, who was secretary-treasurer of the Brotherhood of Railroad Signalmen was succeeded by W. D. Best, vice president midwest region.

Chamberlain leaves; Bates is president

Charles J. Chamberlain, president, Brotherhood of Railroad Signalmen, has been appointed by President Jimmy Carter to become labor member of the Railroad Retirement Board. He has been confirmed by the U.S. Senate. His present appointment is for two years to fill the unexpired term of office of Neil P. Speirs, who retired July 31, 1977.

At a meeting of the BofRS Grand Executive Council, Chamberlain's resignation was accepted and R. T. Bates, secretary-treasurer, was elected to succeed Chamberlain as president of the Brotherhood. Also, W. D. Best, vice president, midwest region, was elected secretary-treasurer.

Chamberlain's appointment to the Railroad Retirement Board is the second such honor bestowed upon the Brotherhood. Former BofRS President A. E. Lyon was appointed labor member of the RRB in 1962. At the time he was executive secretary of the Railway Labor Executives' Association. Thus the similarity of honors continues in the Chamberlain appointment because Chamberlain is also chairman of RLEA as well as president of the Signalmen.

Charles J. Chamberlain was born on August 7, 1921 at Ashton, IL and educated in the public schools of DeKalb, IL. After graduation from DeKalb Township High School, he entered signal service on the Chicago & North Western beginning as an assistant signalman. In 1945, he was promoted to signalman and a year later to leading signalman. In 1950, Brother Chamberlain was promoted to signal maintainer. A member of the Brotherhood of Railroad Signalmen since November 1938, he has been very active in the union. In 1941, he was elected recording secretary of Lodge 108, elected local chairman in 1945 and was elected vice general chairman of the C&NW general committee in 1946.

Chamberlain's rise in Grand Lodge has been continuous and steady. He was appointed grand lodge representative in 1957. Four years later he was elected secretary-treasurer and in 1967 elected president with re-election in 1970, 1973 and 1976.

Chamberlain's outgoing personality and drive were indicated early in his career. Not only active in union affairs, but he found time from his railroad work to be an alderman on the DeKalb City Council from 1950 to 1958. The last four years of his aldermanic office found him as chairman of the Fire Commission of the City of DeKalb.

Since becoming president of the Brotherhood of Railroad Signalmen, Chamberlain has been an active participant in rail union and industry organizations. He has been chairman of the Railway Labor Executives' Association since 1970, a member of the Railroad Industry Labor-Management Committee since 1972, and membership in the Railroad Safety Research Board and the High-Speed Ground Transportation Advisory Committee.

He and his wife Joyce have two sons, Richard B. and Charles M., and 3 grandchildren.

He is a member of BPOE Lodge 1526 of Des Plaines, IL as well as Immanuel Lutheran Church.

R. T. "Tom" Bates, a native of Oregon, was born August 18, 1927 at Glendale. He attended elementary and high schools there. While still in high school, Brother Bates began work for the Southern Pacific working weekends, nights and during school vacations in the motive power department. He held positions of

engine watchman, hostler helper, stationary engineer, steam ditcher fireman and fuel oil attendant. He began work in the signal department in April 1945 as a signal helper and advanced through various positions to signalman in November 1946. Three years later he became signal maintainer, the position he held until December 1, 1963. He served in the U.S. Naval Reserve for nine years beginning in August 1945 with one year of active duty and eight years of inactive service.

Brother Bates joined the BofRS in July 1945. He was elected local chairman of Roseburg Lodge 152 in 1957 and served in that capacity until November 30, 1963 when he was elected SP general chairman. He had served as vice general chairman for three years beginning in 1960. At the 1967 convention of the Brotherhood, Bates was elected vice president for the western region with headquarters in Denver, CO. Three years later, in July 1970, he was elected secretary-treasurer to fill the vacancy created by the retirement of P. T. Drummond. At the 1970 and following conventions, Brother Bates has been re-elected to the secretary-treasurer's position.

Bates and his wife Betty, married since February 1949, are the proud parents of three daughters; Martha L. Cohen, Frances E. Jones and Rebecca T. Wooldridge, and three grandsons. Active in fraternal organizations, Brother Bates is a member of Creswell Lodge No. 112 AF&AM and the Creswell Star Chapter No. 96 OES of Creswell, OR. Also, he belongs to Des Plaines Lodge No. 1526, Benevolent and Protective Order of Elks.

W. D. Best (left) receives congratulations from C. J. Chamberlain. Best was elected secretary-treasurer succeeding Bates.

W. D. "Dink" Best was born July 8, 1923, at Gas City, IN, and while in grade school moved to Logansport, IN, where he graduated from high school. In December 1941, he joined the Pennsylvania as a helper in a telegraph and signal gang working in Indiana. He advanced through various positions of signalman, communications and signal maintainer, and leading signal maintainer. In January 1963, Brother Best was appointed as grand lodge representative of the BofRS. At the time, he was a communication and signal maintainer at Marion, IN. He served three years with the U.S. Army Air Corps in various locations in the U.S. and with the Eighth Air Force in England.

Always active in Brotherhood affairs, Brother Best joined the Signalmen in July 1942. He was local chairman of Duclos Lodge 146 from 1957 to 1963 at the time of his appointment to Grand Lodge. Also, he served as vice general chairman of the Pennsylvania General Committee for two years beginning in January 1961. In 1969, he was appointed director of research at BofRS headquarters, a newly created position because of the need for compiling statistical data and other information in connection with wage cases. Brother Best was appointed vice president in 1973 to fill the vacancy created by the death of T. H. Gregg.

R. T. Bates (left) newly elected president of the Brotherhood, receives congratulations from C. J. Chamberlain.

Upon the 1973 election of G. F. Harper to a vice president's position, Brother Best resumed the director of research position, but was re-appointed vice president to fill the vacancy created by the death of Brother Harper in March 1974. Brother Best was elected vice president, midwest region, at the 1976 annual convention of the Brotherhood.

In addition to his railroad work and Brotherhood activities, he found time to be commander of the American Legion Indiana Post 401 at Redkey, IN, a member Mason in Orient Lodge No. 262, F. & A.M., at Logansport, a member of Rotary International at Mt. Prospect, IL. Brother Best has been a member of the Labor Research Advisory Committee to the Bureau of Labor Statistics, a representative of Community Services for AFL-CIO, and a member of the Task Force on Terminals and Task Force on Rail Transportation of the Railroad Industry Labor-Management Committee.

Brother Best and his wife Jane, married since December 1947, have two daughters, Kathleen D. Vehlow and Theresa J., two sons, Steven W. and Kevin D., and three granddaughters.

NAME THIS MAN

We have a signalman who needs a name. The Brotherhood of Railroad Signalmen is holding a contest to name our signalman.*

The Grand Executive Council will select the winning name from the entries submitted.

The winner will receive a $100 U.S. Savings Bond or a $100 Canadian Savings Bond. All active members of the Brotherhood of Railroad Signalmen are eligible to enter this contest except employes, staff members and officers of Grand Lodge.

A play on words would be one possibility for a name, such as Sig Green or Joe Relay. Use your imagination! More than one entry may be submitted.

Just fill out the coupon below and send to

NAME CONTEST, Brotherhood of Railroad Signalmen, 601 West Golf Road, Mount Prospect, Illinois 60056.

* *Deadline for entries is* **December 15, 1977.**

All entries must be postmarked on or before December 15, 1977.

Name of contest signalman: _____

BRS member's name: _____

Street Address: _____

City _____ **State or Province** _____ **Zip Code** _____

Local No. _____ **Certificate No.** _____

Signalmen support crossing safety

President C. J. Chamberlain and Vice President J. W. Walsh of the Brotherhood of Railroad Signalmen were key speakers at the 1977 National Conference on Railroad-Highway Crossing Safety held at the University of Utah in Salt Lake City on August 23-25, 1977. Chamberlain gave the labor viewpoint concerning crossing needs, while Walsh and John Sytsma, president, Brotherhood of Locomotive Engineers discussed labor's role in crossing programs. Also of interest to signalmen were talks concerning the signal department's role in grade crossing safety. Included in the papers presented herewith are talks by B. J. Hutton, assistant chief engineer, signals, Santa Fe, and R. D. Liggett, chief engineer, communications & signals, Seaboard Coast Line.

In addition to presentations, BofRS officers participated in workshop sessions and visited crossing locations in the Salt Lake City area along with other participants in the conference.

Prime concern is safety, says Chamberlain

As most of us drive automobiles, we are accustomed to crossing railroad tracks at grade. Those of us in the railroad industry, of course, are more aware of the danger, and, therefore, more cautious crossing railroad tracks.

Unfortunately, many motorists are not as cautious and fail to recognize the potential tragedy that could occur as a result of their indifference.

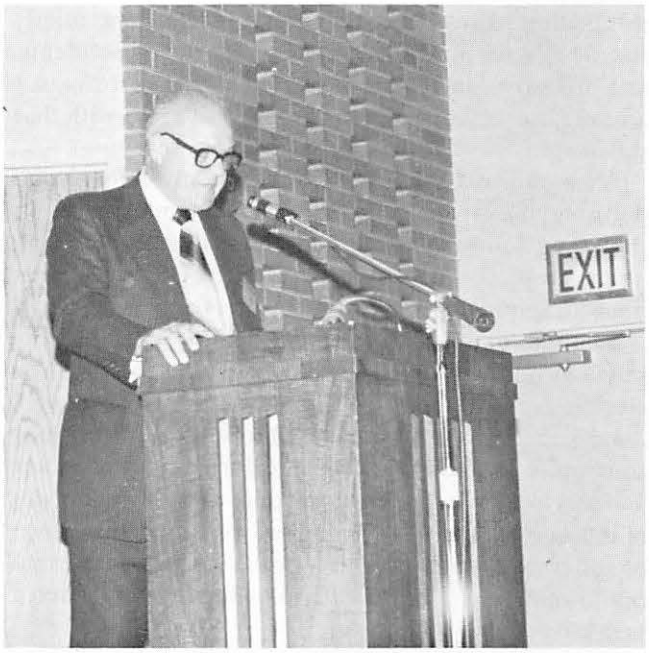
It is a tragedy because of the serious consequences of an accident at a rail-highway grade crossing. Motor vehicle accident statistics reveal that a collision between a train and a motor vehicle is more apt to result in a fatality than one in which a train is not involved. The records show that about one in 275 highway accidents involves a fatality, while the ratio increases to about one in ten for rail-highway grade crossing accidents.

Labor's concern in grade crossing safety is mainly with people. We are concerned for the motorists who face death or injury, as well as railroad employes who may be involved directly or indirectly, such as train and engine crews and signalmen.

Locomotive engineers can vividly relate to you the traumatic experience of sitting in the cab approaching a rail-highway grade crossing and seeing a motorist fail to heed the warning devices. Near misses are shocking, but not nearly as bad as a collision. A locomotive engineer cannot stop his train as quickly as a motorist can, and even if the engineer does not suffer any physical injury from a train-automobile or truck collision, he does suffer mental anguish, which unlike physical pain may never really leave him.

Some train-motor vehicle collisions do involve the train crew to the extent of serious injury or death. Train-gasoline truck collisions are most prevalent in this fatal category. Next are collisions with gravel or cement trucks or tractor-trailers loaded with steel.

These collisions involving heavy trucks generally result in derailment of the train, often overturning the locomotive so that crew members are severely injured or killed.



"The record clearly shows that railroad labor has been a prime mover in the area of railroad and public safety," said C. J. Chamberlain, president, BofRS, and chairman, Railway Labor Executives' Association.

While signalmen are usually not directly involved in the actual train-motor vehicle collision, they are usually among the first people called after the accident to determine if the automatic warning devices were operating properly.

Often, the signal maintainer arrives when bodies are being pulled from the wreckage and helps in rescue or first aid work. I can assure you that such tragic experiences are not easily forgotten.

The tragic impact of grade crossing accidents are far reaching; train crews, motorists, their families and others such as policemen, ambulance attendants, doctors, and signalmen are affected.

The record clearly shows that railroad labor has been a prime mover in the area of railroad and public safety. You will find in the long history of railroad labor unions, a continuing objective of striving for improved safety for the railroad worker and for the general public.

Our prime concern for involvement in reducing or eliminating hazardous crossing problems can be briefly stated: to reduce deaths, injuries, number of accidents, and property damage at rail-highway grade crossings. I am sure most everyone in this room will agree with that statement.

We in railroad labor, believe that we must go beyond defining the problem. We must be constructive in proposing solutions to the rail-highway grade crossing safety problem and making meaningful recommendations for improving safety at these crossings.

Solutions to the problem or suggestions for improving safety at rail-highway grade crossings perhaps could be classified in two categories, namely physical and mental.

Let's discuss the physical solutions. A most obvious solution is to make it impossible for trains and motor vehicles to collide. Grade separation, most often thought of in a vertical sense — the highway either running over or under the railway — is an expensive solution if carried out to fully separate even the so-called heavily traveled highways or busy rail lines.

The cost has been estimated at $100 billion. On a selective basis, grade separation works very well with a minimum of dislocation to existing homes, factories, stores and people.

Several horizontal grade separations have been completed and others are underway. This operation involves moving the railroad out of its existing right-of-way onto new land away from highways. Where handled on an individual case basis, it is working out quite well, but usually involves federal funding and the cost usually runs into millions of dollars.

A more practical physical solution which has proven the most effective in improving safety at rail-highway grade crossings is to install automatic warning devices and systems. Even with this solution, the answer does not necessarily mean to equip every public crossing with warning systems. In some case, where several streets cross the same railroad, often only one block apart, a solution is to dead end some streets at the railroad and equip the remainder with automatic warning systems.

The approach of selective closing of crossings has also been applied in conjunction with grade separations involving underpasses or overpasses of the streets.

Let us discuss for a moment the effectiveness of automatic warning devices. Are automatic warning devices and systems effective in reducing accidents at rail-highway grade crossings? Yes. Several states as well as independent consultants have made studies of crossing accident records before and after automatic warning devices were installed.

Typical of the studies is one made by the California public utility commission. They kept records for three years before and after automatic warning devices were installed at 367 rail-highway grade crossings.

The total number of accidents was reduced from 874 to 303; the number of deaths from 124 to 25; and the number of persons injured from 413 to 89.

To increase the effectiveness of automatic warning devices the mental solution mentioned earlier to improving grade crossing safety comes into the picture. Motorists must be made aware of the dangers potentially present at rail-highway grade crossings and recognize that they must obey signs and warning devices.

Driver education is absolutely essential and is effective in this regard. Certainly public school driver-education programs are most effective and that type of program should be followed by private driving schools for those who did not benefit from public education in driving.

The operation lifesaver programs now carried out in many states with excellent cooperation of state and local government agencies and the railroads are fine examples of the continuing driver education needed in this safety area.

One problem in the driver education area is that of oversimplifying the problem so that the driver does not think for himself but relies upon signs and automatic warning devices to the exclusion of the unforeseen or out of the ordinary.

For, example, a slow train approaches the crossing and the flashing-light signals are operating. The train is a long way off and the motorist, who is in a hurry, thinks they are operating too soon, so he attempts to cross the track. He may make it, or another train may arrive at the

crossing at the same time he does.

He just didn't look in that direction. He relied on the automatic warning system, but then rejected its message because he thought the situation was not the normal one of a train close to the crossing.

Experts in the field point out that credibility must be built into automatic warning systems. This is particularly important today because the motoring public is frustrated with delays.

As one expert put it: "We must get the motorist's attention and convince him a train will hit him if he doesn't stop, and at the same time assure him that he will not be unnecessarily delayed.

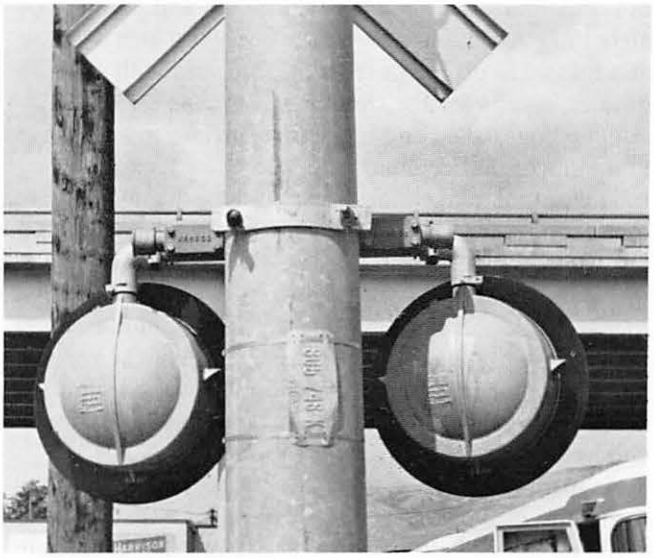
"Admittedly, it's a tall order."

In our judgment, credibility of operation and enactment and enforcement of rigid laws dealing with ignoring railroad crossing automatic warning systems by the motoring public, are two areas where we should focus our attention to further reduce the crossing accident rate.

Up to now I have not mentioned cost, as I have a difficult time relating costs to public safety. However, for those who are cost conscious, a few remarks are pertinent on this subject.

The average motorist — if he thinks much about it at all — thinks it is just a matter of turning on a lamp and dropping a gate arm when the train is coming. He is generally unaware of the complicated mechanism involved in the performance of this function. Least of all is he aware of the cost of automatic warning devices.

The motorist actually sees only about 10% of the system, namely the flashing lights, gates and associated signs, masts and possibly the housing for the controls. The remaining 90% of the automatic warning system consists of the controls, wire, cable and track circuit equipment.



Aluminum number plate for the national inventory of rail-highway grade crossings features raised letters and numbers stamped in the metal sheet. This weatherproof plate can be strapped to the flashing-light signal mast. Location is 300 West St., in Salt Lake City, UT, at a crossing of the Union Pacific.

The high ratio of unseen elements is one reason it is difficult for the general public to understand or appreciate the cost of such warning systems.

Costs may vary, but we believe a generally accepted figure would be about $20,000 for flashing-light signals to about $45,000 or more for flashing-light signals with automatic gates, complete with constant warning time controls that provide the minimum 20 second warning to motorists regardless of the speed of the approaching train.

Unfortunately, many motorists believe — and they have jury verdicts to point to — that the railroad company is totally responsible for automatic crossing warning systems. The railroad should pay, the public says, for installation and maintenance costs.

In 1964 the Interstate Commerce Commission placed the responsibility for rail-highway grade crossing safety squarely on the public. The ICC opinion, Report and Order No. 33440, was sustained by the U.S. Supreme Court in 1966.

Key findings in that report included: "The principal cause of grade crossing accidents is failure of motor carrier operators to stop or exercise due care and caution or to observe and comply with existing safety laws and regulations.

"In the past it was the railroad's responsibility for protection of the public at grade crossings. This responsibility has now shifted. Now it is the highway, not the railroad, and the motor vehicle, not the train, which creates the hazard and must be primarily responsible for its removal.

"Highway users are the principal recipients of the benefits flowing from rail-highway grade separations and from special protection at rail-highway grade crossings. For this reason, the cost of installing and maintaining such separations and protective devices is a public responsibility and should be financed with public funds the same as highway traffic devices," the ICC report stated.

There has been a follow-up on that ICC action. Many states provide funds for installation. Some — about a dozen — provide maintenance funds for automatic warning systems.

The Federal Highway Acts of 1973 and 1976 have provided funding in the area of device installations. Also, Congress recently enacted legislation providing $75 million for each of the next two years to continue these safety programs. Incidentally, railroad labor played a major role in getting this money appropriated in the budget.

Are we getting our money's worth in these programs for the expenditures that are being made? We are reducing accidents generally and decreasing deaths and injury. But even setting aside for the moment the human factors such as alleviating suffering and death, we believe that automatic warning devices are cost effective.

However, the battle is not yet won. Up until 1976, the safety record at rail-highway grade crossings was improving, but deaths and injuries rose last year. Preliminary figures released by the Federal Railroad Administration indicate that 1,093 people were killed at grade crossings in 1976 compared to 978 in the previous year. Also, the number of people injured increased by 237 to 5,405. So far, no official explanation has been offered.

It is imperative that we find the reason for this sudden upturn. Apathy might be an answer. When the decreasing trend was established in 1966, it was natural to think that the momentum of the various programs, federal funding, state and local projects, plus operation lifesaver, would continue the downward trend.

It has been estimated that possibly $15-$20 million has been lost in federal funding because states did not ask for the money and the time limit for receiving the funds expired.

Certainly, the recent upturn in accidents, fatalities and injuries at rail-highway grade crossings should teach us not to be complacent. There is still much to be done and our efforts must be accelerated and vigorously pursued each and every year.

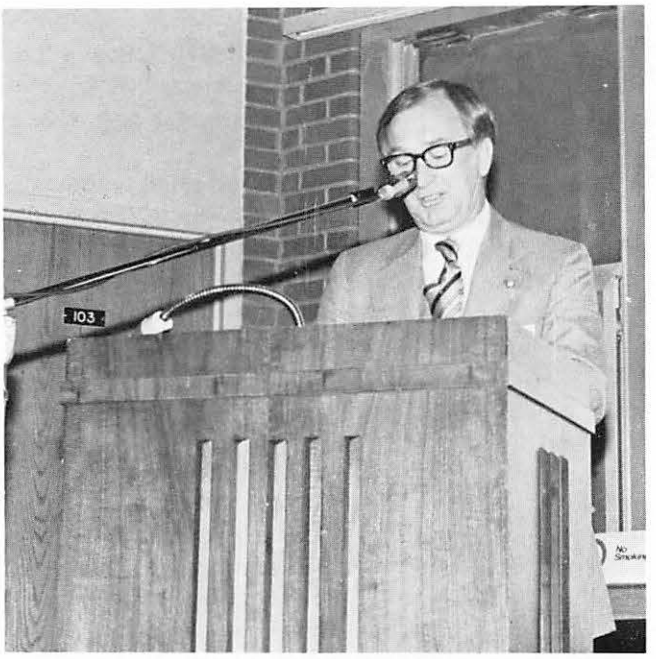
As to the future, I am optimistic and see improvement in rail-highway grade crossing safety. My reasons for optimism are: (1) continuing interest and active support from the public and by governmental agencies at federal, state and local levels; (2) continuing improvements in automatic crossing warning systems and equipment by suppliers and manufacturers; (3) continuing support by the railroads, particularly from their safety and signal departments; (4) continuing cooperation among all parties concerned — the public, government, railroads, manufacturers and labor; and (5) most important, the involvement and support from railroad labor.

In this latter connection and recognizing that my prejudice may show, I must mention the involvement of the Brotherhood of Railroad Signalmen and the fact that our involvement along with our sister railroad unions, has been continuous and active.

Signalmen are the men who install, maintain, test and inspect these automatic crossing warning devices. As president of the Brotherhood of Railroad Signalmen, and chairman of the Railway Labor Executives' Association, I can assure you that railroad labor has been and will continue to be actively involved in rail-highway grade crossing safety.

Signalmen maintain warning devices, says Walsh

Perhaps many of you are thinking what is a labor organization doing so deeply involved in a safety conference. First, let me give you a little background information about the Brotherhood of Railroad Signalmen. At the present time our organization has agreements with every Class I railroad in the United States and Canada. These agreements assign the installation, inspection, and maintenance of all railroad



Agreements with every Class I railroad in the United States and Canada assign the installation, inspection, and maintenance of railroad-highway grade crossing warning devices to members of the Brotherhood of Railroad Signalmen, said Joseph W. Walsh, vice president.

crossing warning devices to our members.

For many years members and officers of our organization have worked with carrier officers and the railroad supply industry in helping with the research and development of crossing warning devices. We have seen crossing protection grow from the most primitive device of a few years ago to the most sophisticated apparatus that is presently being installed on some of the larger and more important crossings. During this time members of our organization have not only installed and maintained all of this equipment, but, in most every instance when an accident takes place at a crossing equipped with warning devices, except for the train crew, it is the signal maintainer who is called and is the first carrier representative at the site of the accident.

The signal maintainer first assists those who are injured and then assists the local authorities in conducting an investigation into the cause of the accident. Over the years members of our organization have been called to investigate some of the worst accidents and most cruel deaths that anyone could ever report. The most horrible reports are when a train and school bus full of children collide and the signal maintainer arrives to find the children either dead or severely injured.

As a result of all of these experiences, following the formation of the Department of Transportation back in 1967, we joined with many other active organizations in seeking some way of improving the type of grade crossing apparatus installed, increasing the number of installations and finding other means of financing the installation of grade crossing warning devices.

The result of this activity led to the Department of

Transportation coming out with their two reports on grade crossings. The reports contained the following information.

At that time in the United States there were 410,000 crossings.

218,323 public at grade
141,942 private
37,431 separations
3,490 pedestrian

Prime candidates for separation are the 1,860 public crossings that have over 10,000 automobiles per day over the crossing. The average cost of separation is $1.5 million with an estimate that one-third would be for labor.

The prime candidates for protection improvement are the 168,100 public crossings that have no active form of protection. It is estimated the average cost for improvements is $40,000 per installation again with one-third of the cost going for labor.

There are 21,800 public crossings that are identified as prime candidates for relocation or closing.

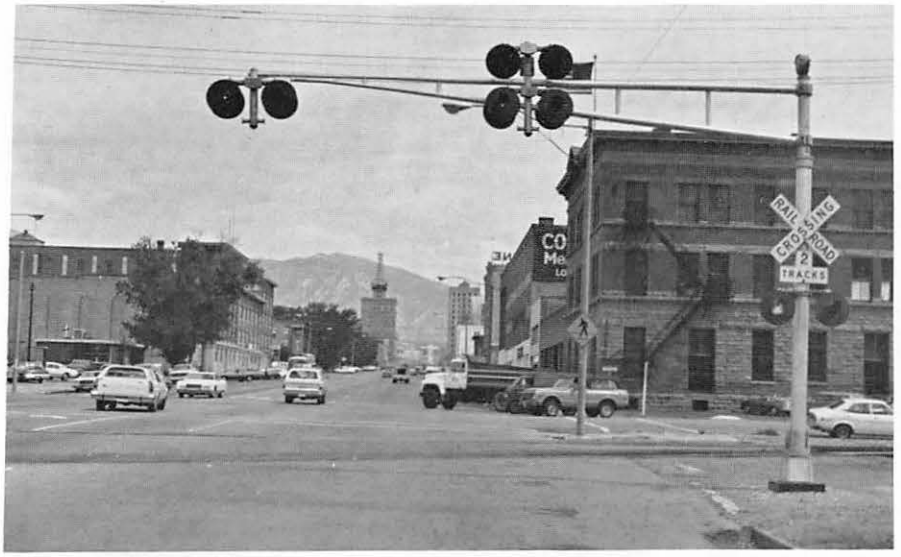
As a result of the reports we also were able, for the first time, to have crossing protection identified and a specific amount for installation established in an individual section of the Federal Highway Act. With this breakthrough came the grade crossing inventory and also new activity in a number of installations each year.

Our organization's first experience under the revised act was in the State of Florida which had a very intensive program that called for the installation of a large number of crossing apparatus each year for several years. As a result of Florida's program and our contracts with Southern and Seaboard Coast Line railroads, the Secretary of the Florida Department of Transportation requested that an officer of our organization attend and participate in his rail conferences. At these conferences many people pointed a finger at our organization as the

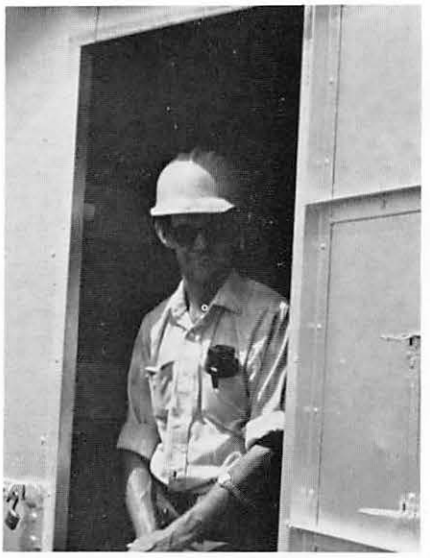
culprit that was slowing down the program or, in some instances, not allowing it to get off the ground at all. After much discussion at these very important conferences we were able to establish that our union contracts did not in any way hinder the installation of crossing protection. However, as a result of Florida's intense annual program, we did modify or make special agreements that would allow other members of our organization, that is other than Seaboard Coast Line or Southern c&s employees, to help with the installation of crossing devices at specific locations.

We were also able to prove that the slowdown was not a result of any restrictive provisions in our contracts, nor was it a result of poor planning and low inventory on the supplier's part, in fact, in almost every instance when one area of difficulty would arise, we were able to zero in on that area and rectify the problem.

To date I do not believe the State of Florida has reached their goal for the annual number of installations, however, I do feel, as a result of the Secretary's activity and his conferences, that state is making rapid progress and while all in Florida may not be satisfied, at least the officers of the Florida DOT have recognized and zeroed



At Second South Street in Salt Lake City, Union Pacific yard tracks cross this wide street. Top pair of flashers over curb lane are strobe lights that flash with a brilliant red light to attract motorists' attention.



Howard J. Rasmussen, a member of American Lodge 111, is a UP ctc maintainer in the Salt Lake City area.

in on the problems.

The problems in the Northeast area of the United States are entirely different than those in the State of Florida. Prior to April 1, 1976, the Northeast was just one large mass of bankrupt railroads. It was the bankrupt carriers' position that most of these railroads, because of their bankruptcy, would not or could not cooperate in any federal program to install any number of devices. Following ConRail's birth on April 1, 1976, the ConRail management took an entirely different view of crossing installations, and I am happy to report that we now have an intensified program on that property. As a result of this change in attitude, several other Northeast carriers are also changing their attitudes and have become active in accepting federal, state and county funds.

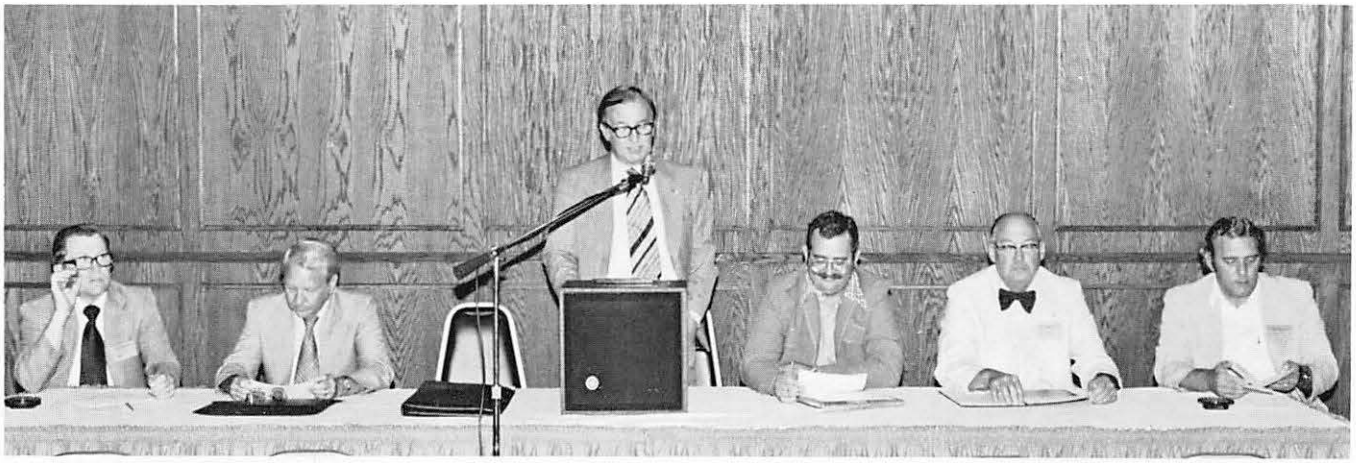
I must report that our organization has at different times negotiated agreements with Northeast carriers that allow the members of our organization, other than those who are employed by the individual railroad, to install specified warning devices in very specific locations. I must emphasize here and now that while our organization is very interested in seeing crossing warning devices installed throughout the United States, everyone at this conference should understand we have not given up our position that the installation, maintenance and inspection of these devices is assigned to our jurisdiction and only our jurisdiction. Whenever relief is given to a railroad that has a problem, it is given by agreement between an individual carrier and our officers on that property.

There is a criteria set out by our organization that the individual railroad must meet prior to or during our negotiations in this type agreement. You may wish to contact the officer of our organization on your property and discuss it with him.

The officers of our organization are concerned and have some problems with the Department of Transportation, both in the Federal Railroad Administration and the Federal Highway Administration. We are gravely concerned about the type of research going on at the FRA Center in Cambridge, Mass., and some of the reports that drift out to the field. FRA representatives at the Cambridge Test Center have, from time to time, discussed equipment that would provide less protection than normal devices presently in service, to be installed on those crossings with low density of rail or vehicle traffic and, therefore, would be less expensive to install.

It is our opinion when warning devices are installed on a crossing the public has every reason to believe it is the very best equipment available and it is designed in a fail-safe manner. Once this crossing is upgraded, the public can and will rely on the warning device to tell them when a train is in the area.

The costs of crossing warning systems should be treated carefully in that potential hazards are automatically built into the least expensive systems. The most economical system would begin operation when trains reached a specified distance from the crossing regardless



Joseph W. Walsh, vice president, BofRS, (at microphone) led a workshop session covering problems and solutions to improving safety at rail-highway grade crossings. Consensus was that there can be greater communication and cooperation among railroad, highway, local, state and federal officials. Panel members, shown left to right, included James T. Sullivan, chief engineer design & construction, ConRail; W. F. Holl, regional director safety, Federal Railroad Administration; Walsh; Robert D. Stokes, programs engineer, Federal Highway Administration; Hugh C. Kendall, senior consultant technical marketing, General Railway Signal Co.; and James A. Carney of the Federal Highway Administration.

of their speed. To be safe, design would be for the fastest train in the territory.

Today's motorists are impatient. A rail-highway grade crossing to them is at best a petty annoyance or impediment to their progress. The potential hazard is that with the economical or cheap warning system in service, the motorist arrives at the crossing, he sees the train in the distance and decides he has time to cross the tracks. He ignores the warning system. The time arrives, however, when he ignores the warning message and he is hit by the fast train.

Slow trains and switching moves provided too much delay for the motorist. This can be overcome by installing constant warning systems. These systems provide the same amount of warning time, about 20 seconds, regardless of train speed or action, such as switching moves. To put it another way, these systems begin operation about 20 seconds before the train will arrive at the crossing. Constant warning systems foster good driving habits for the motorist because they consistently provide him with timely warnings.

With constant warning systems, initial cost is higher than for the other more simple warning systems. Also, maintenance costs are higher because the equipment is more complex and there is more of it to maintain. Also, the complexity requires more skill and knowledge on the part of the signal maintainer.

Less expensive devices that would not be fully reliable or afford the same amount of protection will only add to the many problems we are now experiencing. We recognize the cost of installing this apparatus and are gravely concerned in keeping the cost down as anyone in the industry, the federal government, the states, cities and county officials. However, many reports that have come out recently or remarks made at conferences stating that because of the high cost of the present apparatus, we go to something less expensive that is also less reliable are remarks that give our organization grave concern. We feel the railroad industry should be concerned in this matter regarding their responsibility to the traveling public should somebody be killed or injured on any crossing that is equipped with less than the very best warning devices that are available.

We are concerned about the maintenance of those crossings that presently are equipped with warning devices and those new crossings now being installed. We feel when the federal, state or local government spends their funds to install crossing warning devices, the public should demand it is the best equipment available and that all railroad management will see that this equipment is properly maintained.

Reports filed a few years ago by our members assigned to maintain this equipment were so upsetting our officers felt it was time for action. As a result, we contacted the Association of American Railroads Communication & Signal Section and requested a committee be formed to draft rules covering maintenance of warning devices.

The Committee was formed and agreed to try and write maintenance rules similar to Rules, Standards & Instructions for Railroad Signal Systems. The AAR-BRS committee began work on the drafting of these rules in December 1974 and on June 23, 1975 the joint AAR-BRS committee presented their proposed maintenance rules to the FRA administration with a request that the FRA promulgate rules and regulations for highway grade crossing warning devices.

We contend the FRA is empowered with the authority and has the outright responsibility under the provisions of the Railroad Safety Act of 1970 to promulgate these rules. I am sad to report to this conference that to date the FRA has failed to take action on our joint proposal.

We have reviewed with great interest the recent DOT final report on potential means of cost reduction in grade crossing automatic gate systems. We agree with the intent that as many crossings as possible should be protected with gates. Those crossings that have the additional gate apparatus, the study has shown, reduced the amount of accidents by another 25 or 30% over those that just have flashing lights.

We are gravely concerned with certain changes in the new Federal Highway Administration Highway Manual where reference is made to crossing protection. For the past 76 years it has been our organization's position that this equipment, no matter how it is actuated, comes

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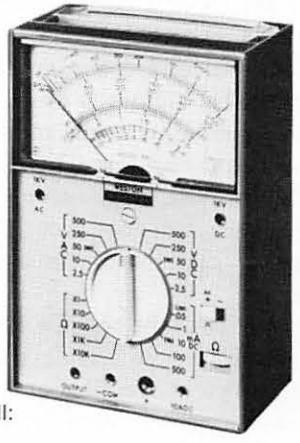

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under our jurisdiction. Some people, who for unknown or foolish reasons feel they can change or improve on this type of equipment, and change the jurisdiction of the work, are only going in the wrong direction.

We also have received a report that the Federal Highway Administration has a contract with some consultants to draft grade crossing maintenance rules. This report disturbs the officers of our organization —first, due to the waste of money hiring a consultant to do work that was already completed by a competent AAR-BRS committee. And, second, we feel the jurisdiction of railroad crossing warning devices is and should continue to be assigned to the FRA.

We have been concerned about reports that the Federal Highway Administration has made remarks about the low number of accidents at rail-highway locations when comparing them to the overall highway accidents. I would like to call to your attention, in most instances, when an accident occurs between a train and a moving vehicle at a highway crossing, it usually results in a fatality. In 1975 the Federal Railroad Administration reported the number of accidents that result in fatalities had been reduced by 25%, however, there are still 910 persons killed in this type of accident in the United States.

To the signal engineers in the audience, I would like to remark to some of you who have resisted having crossing warning systems installed on your property because of the lack of maintenance funds, let me call to your attention the work that was done to get federal funds to install crossing devices. While we have had a program for some years we have not been able to accomplish all that Congress intended or the goals that were established for us. Before we can talk about maintenance funds we must get our installation program somewhere in the range that Congress and our state people have talked about in the last few years. It may be that we will never see federal funds for maintenance, however, it is not too much of a dream to think of the possibility of having states assume part of the maintenance cost. In fact, at the present time, there are about a dozen states that assume part of the maintenance cost on new installations. Best estimates are that maintenance costs run about $1,500 per year per crossing. This figure is based upon out-of-pocket cost such as maintainer's time and for replacement parts. Our organization requests signal engineers to think of the overall benefits, the reduction of your railroad's liability when an accident does occur, and of the lives we may be saving by establishing an aggressive installation program.

Look at all of the benefits you can present to operating officers—improved service, reduced operating cost, and a more efficient overall operation.

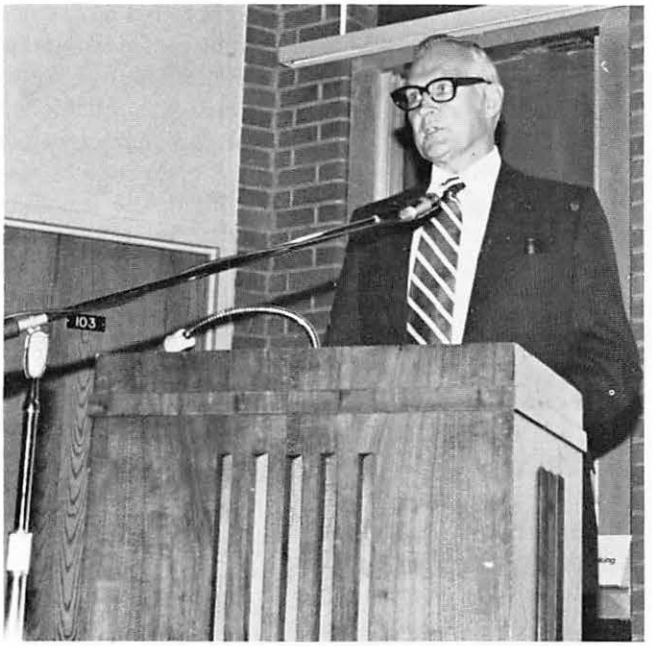
I was shocked to learn Penn Central, a few years ago, still had crossing watchmen assigned to guard some of their grade crossings. Also, to learn of locations where train crews had to stop their train and flag across unprotected crossings. At a time when a train crew can only remain on duty for twelve hours and with the cost of moving a carload of goods, one must assume a railroad to become profitable or remain profitable, must have an efficient operation. Stopping a train to flag across an unprotected crossing is not an efficient operation.

Our organization would like to see all of the money appropriated by Congress each year spent on new installations. We are sure once Congress and the states see progress in the number of new installations and a drastic reduction in the number of train-vehicle accidents, we can then discuss maintenance cost.

Sytsma gives an engineer's view

As you start your regular day's work, do you entertain the thought that you may bear direct witness to the killing or injuring of another human being in the course of performing your duties? Is your profession of such a nature that you have to condition yourself for such a daily eventuality? How many of you start your workday with reason to believe that there is a good chance that you will witness the senseless death or injury of children in a school bus, a mother or father or both in a passenger car, a truck driver in a semi or tank truck, a teenager on a motorcycle, or an elderly pedestrian.

After giving some thought to these questions, ask yourself whether or not you would want a job, or continue in one, that is often involved in the taking of human life and infliction of serious injury; and then, think of the locomotive engineer and other railroad employees who work in the cab of the locomotive.



"As you start your regular day's work, do you entertain the thought that you may bear direct witness to the killing or injuring of another human being in the course of performing your duties?" asks John F. Sytsma, president, Brotherhood of Locomotive Engineers.

Let's climb up in the cab of the locomotive and view this national safety problem from that vantage point. From here we will try to extend that view beyond and behind the immediate and direct losses resulting from the thousands of accidents which occur where the public and private highways and roads cross the nation's railroad tracks. We know how many accidents occur each year, how many of those accidents involved automobiles, trucks, pedestrians, buses, motorcycles, and other motor vehicles. We know how many die each year, and how many are injured as a direct result of these accidents. We also know the monetary value of the loss and damage to property and the lading being transported in the train, and sometimes in the motor vehicle. These losses are, of course, of great magnitude and are readily identified. They become the statistics which we refer to and rely upon in part of our future course of action in dealing with the problem.

But there's much, much more to this national problem then we see in the statistics. Are we really aware of the overall problem; the total losses and costs? Or do we tend to forget and overlook the losses and costs not so apparent or readily identifiable? I'm speaking of the losses and costs not generally included in the dollar economic figures; those which emerge in mental anguish, pain, emotional strain, that must be constantly endured by the employees in the locomotive cab, especially the locomotive engineer.

These losses and costs are continually being incurred both because of an accident or accidents in which they were involved, and because of the real possibilities of

such an accident or accidents occurring on each future trip. So, let us try to view this part of the problem with the men in the cab and try to look beyond and behind the picture depicted by the typical annual statistics.

To really understand this part of the problem and the losses, we have to empathize —share some of the thoughts of the engineer at that moment of truth when the locomotive collides with the automobile or vice versa. I made a special inquiry of a considerable number of engineers about their experiences during these accidents. Some, fortunately, have never had this experience. One engineer had one experience in 34 years of service. Others have had more than their share, like 10 in 20 years, 6 in 10 years, 4 in 4 years, 2 in 4 years. One engineer interviewed was involved in 4 crossing accidents in 5 years, all of which involved passenger cars and in which 4 people were killed, all in the same accident. Another one was involved in 6 crossing accidents in 10 years in which 4 people were killed in 3 of the 4 accidents. And, in yet another case, the engineer was involved in 5 crossing accidents in 15 years — the last 4 involving a passenger car, a school bus, and two light trucks, in that order. Fortunately, in the 5 accidents, there were no fatalities, but a total of 8 persons injured.

Based on some of my interviews, I had the feeling that in some cases, the rate of involvement is so high, that some engineers have come to accept and treat it as somewhat of a routine experience. For example, in describing his thoughts and actions, the engineer involved in 15 accidents in 18 years described it in this order:

Not going to stop —Blow the horn

Emergency Brakes

Go back and take care of him — call ambulance — get witnesses

So this killing and maiming become so much a part of the job that some of our engineers have no alternative but to condition themselves to handle each case in a rather robot-like, unfeeling manner. But regardless of these personal reactions, each experience is a traumatic one to say the least and each experience is never forgotten. The crossing and the results of an accident are forever marked in the mind of the engineer. In the fact, I think it can be said that the probability of being involved

Gregson Avenue crossing in Salt Lake City with Union Pacific is equipped with standard reflectorized crossbucks and highway stop signs. A 32,000 lumin mercury vapor floodlight is on one side of the track to illuminate trains from one approach and provides flickering effect from the opposite approach.

in a crossing accident is so great that it has become a part of the engineer's plans and preparations of each trip or tour of duty, especially in road freight and passenger service. As ludicrous as this mental preparation may seem, the probability is ever present on his mind and on the minds of the members of his family.

Perhaps it might be appropriate at this point to take a quick look at what the view is from the cab, in relation to the rate which a locomotive engineer will, in all likelihood, be involved in train/motor vehicle accidents/collisions.

In 1975 there were 7,736 crossing accidents where the motor vehicle was struck by the locomotive. In addition, there were 2,128 accidents where the motor vehicle collided with the locomotive. This is a total of 9,864 accidents, or 87% of the total (11,354) crossing accidents. This is the panorama from the cab.

There were 10,925 trains and, of course, the same number of locomotive engineers involved in collisions between the railroad train and the motor vehicle. As I just indicated, 9,864 of these accidents, or 87% involved either the locomotive striking the motor vehicle or the motor vehicle striking the locomotive. In the balance of the accidents, the motor vehicle collided with some other part of the train. In 1975, 9,864 locomotive engineers had that kind of view from the cab, and it was a ringside seat. Today there are approximately 35,000 engineers on railroads in the United States. The number of engineers having a ringside seat to the 9,864 crossing accidents in 1975 represents a number in excess of 25% or one-fourth of the total work force of engineers.

Stated another way, and based on the 1975 record, in a period of four years, the number of locomotive engineers who will in all likelihood be involved in this type of an accident will exceed the present total work force. A few may never be involved, and others will have more than their share of this terrible experience.

In 1975, freight trains were involved in 7,548 of the accidents involving motor vehicles. There are about 16,000 engineers in freight service. This means that the number of engineers involved in accidents involving freight trains in 1975 was almost 50% of the total number of engineers in that class of service.

Based upon the number of accidents involving freight trains in 1975, and the number of engineers in that class of service, 16,000 engineers or the total number in the present work force, can expect to be involved in crossing accidents in each two-year period. The rate of involvement in this type of service is about double that for the entire work force of locomotive engineers.

Returning now to the cab with the engineer at the moment of truth — Picture yourself, if you will, standing right behind the engineer in the cab of the locomotive. The locomotive is operating with its short end ahead so you have a reasonably good view of the track and right-a-way. We are starting our trip at Indianapolis, Indiana and heading for St. Louis, Missouri, a distance of 252 miles. In this 252 miles, our freight train will cross 146 highway grade crossings. Some of these crossings have crossing gates, flasher lights and warning bells, some have flasher lights with or without bells, others have warning bells and still others have only the cross buck signs. The authorized maximum speed for our freight train is 60 miles per hour. On the average, we will be sounding the locomotive horn and moving over a highway crossing every 100 seconds. As we watch ahead for these crossings, we should keep in mind that it is afternoon, a time for school buses and teenage drivers; they keep you on the edge of your seat. We also are especially alert at one crossing which is the access to a gasoline supply depot. Tank trucks are continually crossing the railroad tracks at this point. We have four locomotive units on our train and their total weight alone exceeds a million pounds. The train consists of twenty trailer-vans (piggy-back), all having roller bearings which enhance speed. The length of the train is slightly over a quarter mile in length, which is about the same

Crossing at 300 West Street in Salt Lake City shows the need for cantilever-mounted flashers to clear trailer trucks and still provide warnings to approaching motorists. Vehicle traffic averages 14,660 daily with a 35 mph speed limit. Train movements include 6 through trains plus switching moves at 15 mph. Flashing-lights have 12-inch roundels.

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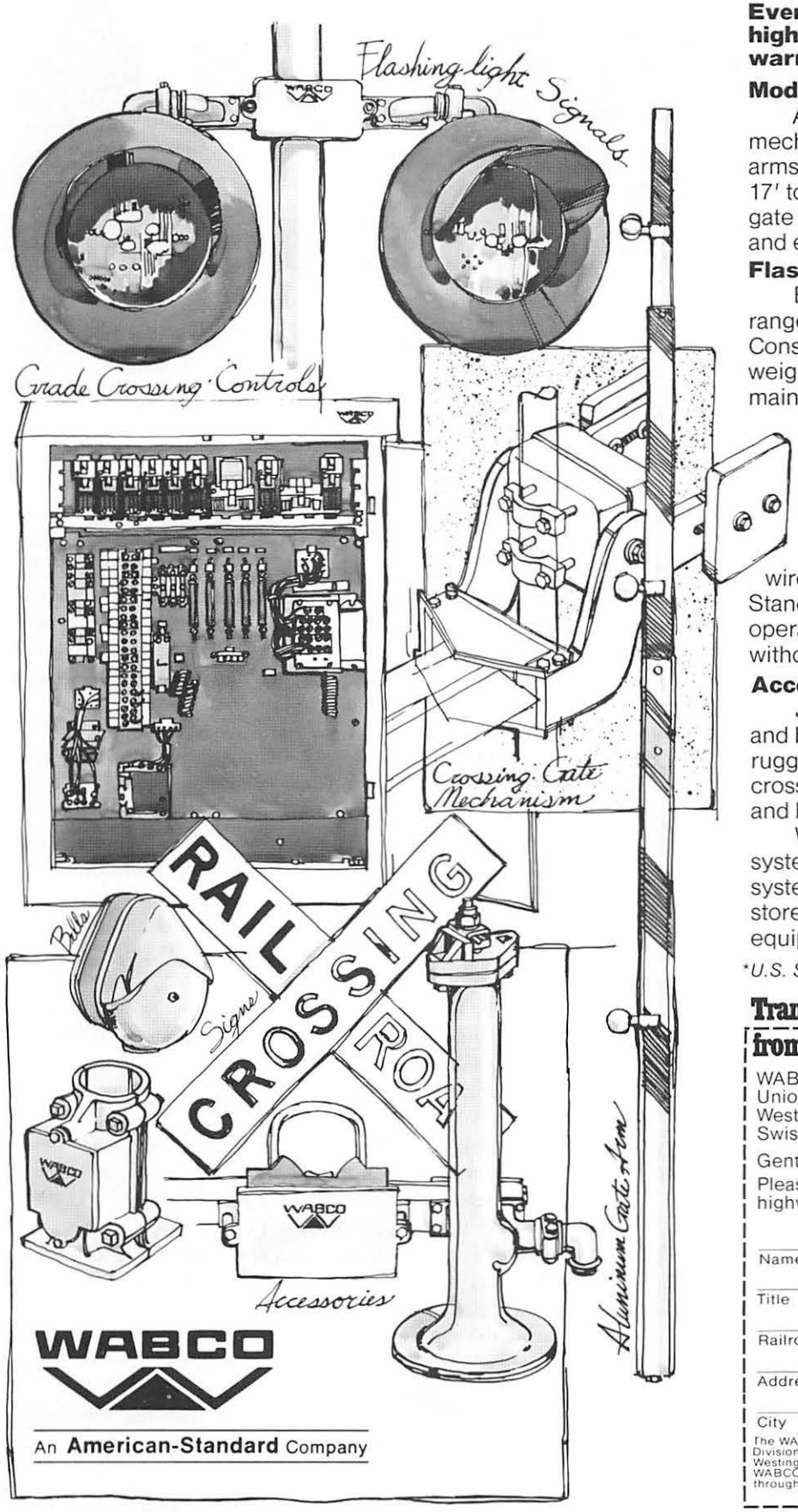

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C. Shoemaker, crossing engineer, Union Pacific, chaired a workshop covering western and pacific coast states. Again cooperation was stressed between railroads and highway officials. Shown here, left to right, are: Howard Murray, legislative representative, United Transportation Union; Howard C. Palmer, vice president corporate development, Safetran Systems, Corp.; Sidney J. Louick, highway engineer, Federal Highway Adminstration; Larry W. Darnes, safety prorgams manager, Federal Highway Administration; Shoemaker; William W. Allen, assistant to chief engineer, Southern Pacific; R. T. Bates, secretary-treasurer, Brotherhood of Railroad Signalmen; and J. T. Bass, vice president, BofRS.

distance between the whistling signal post and a highway grade crossing. We start whistling approximately 15 or 18 seconds from each crossing. Allowing about 20-30 seconds for sounding the locomotive horn at each crossing, we will have, by the end of the trip, sounded the horn for a total of about one hour for the trip. Our train will only occupy each crossing, counting approach time, for about 30 seconds, but it seems even that is too much time for some motorists hurrying to get somewhere, or should I say, nowhere. The motorist notes our approaching train, possibly thinking it's a long slow freight, attempts to weave around the gates, but his judgment is wrong. It looks like another near-miss — but no, it's too late, the car can't make it. Even though it is daytime, the locomotive headlight is burning bright, bell clanging, and whistle blowing. Our engineer has placed the air brakes into emergency, not that it will avoid the pending collision, but it may slow the train should the car be carried with us or go under us and perhaps derail our train. The auto is knocked clear of the tracks and the head end of our train comes to a stop nearly a mile from the crossing. We now realize there is no hope for the driver. We are shaken, but unhurt physically — We regain our composure, call for assistance from the highway patrol, then inspect our engine and train for damage.

The view from the cab isn't a pleasant one during these collisions. It is one which adds up to other terrible losses beyond the statistics; the emotional, mental anguish, and pain and suffering by the engineer and other crew members. The engineer cannot forget the students he helped extricate from the wreckage of the school bus or automobile. He will always remember the 17 year old girl who lost both legs or the 16 year old boy who lost one of his arms. I could go on and on about such memories which are with the engineer constantly.

Some of the engineers I have talked with cited other losses and costs which emerge in the form of: leaving the railroad service prematurely or permanently, taking another job with the railroad, taking another engineer assignment where the exposure to hazards of highway crossing is not so great, and in some cases mental problems and even suicide.

The engineers's family is involved as well. What are some of the comments that the engineers made concerning some of his personal feelings and feelings of members of his family? Here are some illustrative comments:

- I always hope and pray for a safe trip and try to do the best job possible. My family feels the same way.
- It is without question the worst part of the job — I don't talk to my family about the hazards, other than to constantly remind them of the personal danger to them at crossings.
- My family is apprehensive from the time I leave home until I return. My family feels I could have an accident driving my car.
- I hope that I live long enough to go on pension. My family has many restless nights while I am working.
- I call home after every road trip to assure my wife that I am safe. My family prefers that I work in the yard.
- I feel that it is part of the job. I wish that they had stronger laws about motor vehicles at grade crossings.
- We are very much concerned about enforcement of the laws on vehicles at grade crossings — My family wants me to retire.
- It is a strain on me — My family worries about me every trip.
- My family knows danger is apparent.
- My family's concern is primarily for my safety. Maybe it's like an army wife — knows her husband is in a

theater of operations.

- The hazards are accepted having realized that this would be part of the job when I took it. Do not know how my family feels since it is not discussed.
- My family wants me to find another job.

We feel that the losses behind and beyond the statistics are heavy, and the price being paid for the view from the cab is far too costly. These losses are of course reduced, each and every time there is one less crossing accident.

Overall, we believe our National Crossing Safety Program has been, and still is, an effective program. But, we must continue our offensive on all fronts. The preliminary statistics for 1976 indicate an increase in both fatalities and injuries over 1975. Our program should continue to utilize all proven methods of reducing hazards and accidents such as, but not limited to:

- A greater public awareness of the dangers.
- Separation of road crossings.
- Combining and eliminating crossings at grade.
- Grade crossing warning devices.
- More stringent enforcement of the laws.
- Further funding and implementation of the programs that have been sanctioned by the U.S. Congress.

At the same time, we should encourage research and development of new methods and techniques for reducing the hazards, the number of accidents, and minimizing the severity of those accidents that do occur.

Of the six methods I've noted that have proven effective in reducing accidents, public awareness would seem the most logical and efficient, and easiest to administer. Yet even before the advent of the automobile Joe Citizen failed to realize the compounding and culminating damage his wreckless actions had upon the locomotive engineer.

I quote:

"The man who walks carelessly across a railway track in front of an onrushing train forgets it. The man who runs across, as if in the greatest hurry of his life, although he usually turns around and watches the train go by, also forgets it. He feels that he is safe. But the engineer is alarmed. He does not know but that the man is deaf. The train has such a momentum that it could not be stopped. Old engineers say that they have had their nerves shattered by such incidents. One who admitted that his gray hairs did not come from age thus decribed it: 'If you were swinging an ax and a child should quickly place its finger between the ax and the log, how would you feel? This is the kind of experience that every locomotive engineer must suffer, sometimes many times a day. The fatalities are infrequent, but no mathematical computation of probabilities can remove the anxiety of the helpless engineer. He dreads what may easily happen.' "

This passage was excerpted from an article which appeared in our organization's former "Locomotive Engineers Journal," entitled "The Nerves of the Engineer". Reprinted from the "St. Louis Globe Democrat," it was published in March, 1915. It is especially relevant because the account makes reference to "old engineers"

who've had their "nerves shattered" by irresponsible citizens. This dates the plight of the engineer back before the turn of the century.

The BLE feels public awareness has to be heightened considerably more than programs have provided for in the past. Railroads and their labor organizations must act in concert with federal, state and local governmental bodies to make readily apparent the perils of the grade crossing to citizens and train crews alike. Empathy, we feel, is the key.

There is a need for a higher degree of crash-worthiness

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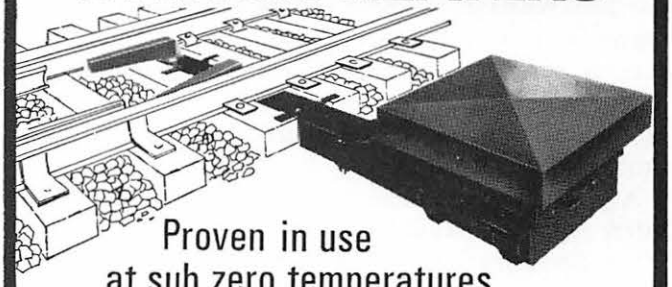

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in the engineer's work place, the locomotive cab. There is a need for greater protection from the impact of the collision and possible derailment through having the design and construction of the front end of locomotives incorporate better principles of deflection. There is a need for greater protection against fire and explosion when impacting with motor vehicle carrying hazardous and explosive materials. Fuel tanks on the locomotive have been known to catch fire and explode during an accident, also.

The Brotherhood of Locomotive Engineers has participated both as an organization individually, and through the Railway Labor Executives' Association in a national highway grade crossing safety program for a long time. I recall programs in which we participated like the near-miss program carried on a few years past. I recently advised Jim Johnson, Chairman of the "Operation Life Saver Program" in Texas, that the Brotherhood of Locomotive Engineers indeed has strong feelings about the railroad-highway grade crossing accident problem. We have, of course, endorsed that program and others like it. Our State Legislative Representatives are actively participating and supporting these programs, and we intend to continue to participate nationally in the better management of this national and public interest problem.

A part of our continuing program on grade crossing safety is the publication of letters and articles in our official publication, the "Locomotive Engineer". I believe my comments on the view — the picture from the locomotive cab, can be fittingly framed in excerpts from two of these recent articles. The first is an excerpt from an article written by a locomotive engineer's wife to the Editor of the Orlando (Fla.) Sentinal Star, and I quote:

"In all the detailed reporting of fatalities involving trains, there has been one group of victims grossly ignored — the train crews. I wonder how many ever think of the helplessness an engineer feels when confronted with an impending tragedy over which he has no control. It is a traumatic experience from which he never completely recovers.

"Though he realizes he could have done nothing more than apply the emergency brake, accidents are not considered 'all in a day's work'. These men are not unfeeling and go to work wth fear not for themselves but for the safety of others.

"These facts have been overlooked. Being a railroad wife gives me an insight to a situation of which few are aware. Railroading is no picnic in these times of air-conditioned cars with the windows rolled up and radios or tapes blaring and often the motorist's mind occupied with a CB radio or other problems besides driving. No amount of blinking lights or blaring whistles can compensate for a few seconds of caution on the part of the motorist.

"Each day I pray for my husband's safe return and that he won't have to live with some tragic nightmare that can never be erased from his mind."

The other one is an excerpt from Gus Welty's column in the Railway Age. After throwing his Santa Fe locomotive into emergency when a youth in a sports car tempted fate by speeding over a grade crossing in front of the train, the engineer wrote an open letter to the driver which was published in the El Dorado Times. He wrote, and I quote:

"Young man, death embraced you and you escaped. Both the brakeman and I could see the expression of stark terror on your face. But we wonder if you have an idea of the anguish we on the engine felt when we knew that you were about to die on such a beautiful morning and there was nothing we could do about it. You not only endangered your life but also the lives of the four men on the crew, as the train brakes were in emergency when you crossed in front of us. Please, son, the next time you approach a railroad crossing, slow down, be alert, and thank God for a miracle that you are alive today. We did."

The theme recurrent in both of these articles is empathy; the vicarious experiencing of another's feelings or violations. Clearly, the American public has yet to place itself in the locomotive cab.

Hutton: Signal department important

In one brief statement, the signal department is responsible for the installation and maintenance of grade crossing warning devices. Historically, the signal department was formed to provide signaling systems for train operation. The basis of these systems being the track circuit, which provides a means to detect train presence. The track circuit was invented in 1872, and the signal department on the Santa Fe was founded October 1, 1897.

Very early, it was found that some type of warning was required at railroad/highway intersections, and because of the very nature of the problem, it was the signal department's lot to provide the answer. Audible warning devices were used in other applications; consequently, the vibrating bell was chosen to provide the necessary warning, actuated by track circuit control. Progress was slow and, as a result, human flagman and manual barriers were also used. As we progressed technologically

"The signal department is responsible for the installation and maintenance of grade crossing warning devices," reports B. J. Hutton, assistant chief engineer, signals, Santa Fe.

the human element was replaced by automatic systems. Organizations were formed by the early signal engineers to discuss mutual problems; an outgrowth of this was the Signal Section AAR, later to be combined into the Communication & Signal Section. The Joint Committee on Railroad/Highway Grade Crossings was formed, which was composed of both operating and signal officers. The Joint Committee was very successful in accomplishing its mission and published Bulletin No. 1, Rail/Highway Crossing Protection Recommended Practices. This pamphlet outlined the requirements for rail/highway crossing warning devices and was published in 1931. The Joint Committee was succeeded by a permanent technical standing committee known as The Grade Crossing Protection Subcommittee of the Train Operation, Control and Signal Committee of the AAR. The work of the Committee in the area of Highway Grade Crossing Warning Systems was later taken over by Committee "D" of the AAR C&S Section. Through the efforts of these committees seven Bulletins were published before the subject was totally included in the MUTCD - Chapter VIII.

An outgrowth of this activity was the total responsibility of the signal department to design, install and maintain the crossing protection (warning) devices. This included recommending the type of devices to be used at the crossing, control system design, material procurement, field installation, and future maintenance. As an aid in reaching a decision on these problems, the signal engineer referred to the current Bulletin on Rail/Highway Crossing Protection, now Chapter VIII MUTCD, as well as requisites and specifications prepared by the Communications & Signal Section, AAR. Prior to 1940, practically all crossing warning devices were installed at railroad expense; consequently, the railroad depended on the signal engineer for recommendations regarding type of devices to install. Through these activities he became the expert in this field. Since 1940 federal funds have been made available for this purpose and the states have also established grade crossing funds to promote safety at rail/highway crossings. As a result, the choice of warning devices at the crossings has slowly been preempted by state and federal authorities until, today, this choice is in general dictated by proper public authority.

In preparing necessary details for a project the signal department staff prepares necessary control circuit design, detailed estimate, detailed bill of material, and consults on contractual language. The detailed estimate required is our most difficult area, especially in the present inflationary period. We can and do anticipate increases in labor and material costs providing no unusual delays are encountered between the project's inception and completion date. In recent years we have either had a feast or a famine in various states. This poses a most difficult manpower problem since our labor force is divided into districts and the employees normally do not cross seniority district boundaries.When we have a large program in one area and build up our force accordingly and then the program is curtailed, a surplus work force ensues which causes force reductions. When the next large program is planned we are usually faced with a new work force to train as the men previously trained and then laid off do not respond when recalled because they have found more stable employment. The answer to this problem is better planning of our Crossing Safety Programs so as to maintain a consistent and continuing program which will allow us to maintain a more constant work force.

At this point, I would like to digress on the subject of regulations governing crossing warning devices: FHWA Procedure Manual makes provisions for reimbursement when certain types of systems are installed. This includes full compensation where a backup, or redundant systems are wired in place. On the other hand, spare parts do not qualify for reimbursement. The fallacy of this is that a project can be installed at a lesser cost on the basis of spare parts over the redundant system. The spare parts setting on the shelf are not subject to damage by environmental effects, while the back-up, or redundant, unit can be. The FHWA requirements are forcing the Signal Engineer to over-design the system in order to protect the operation and the railroad's investment. If spare parts were allowed by FHWA, installations could be made at a lesser cost, allowing more crossings to be protected and the taxpayer, as well as the railroad, would benefit. The alternative is for the public authority to contribute to the maintenance of the crossing warning installation. In this way the original installation could be

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Regional workshop covering southern and midwestern states was chaired by Lucien M. Bolon (left) highway engineer, Federal Highway Administration. At far right, second row, is John E. Hansen, director of research, Brotherhood of Railroad Signalmen. In front row, from the right end going left, are: Hoy Richards, professor, Texas Transportation Institute; and W. D. Best, vice president, BofRS. Cooperation between government officials, railroads and suppliers was stressed.

made based on a straight forward engineering design approach with necessary maintenance material charged to the public authority responsible for the maintenance expense.

By comparison when railroad installations are made, ICC Accounting Rules require that spare parts be capitalized as part of the original installation. It is my opinion that a similar philosophy can and should be applied to federal aid projects. Again, such a procedure would reduce the cost of installation, and provide necessary parts for emergency repairs. This would result in more crossings being protected with the available funds.

We are also concerned with interpretation of FHWA Policy. The Santa Fe operates through eleven states and we encounter a somewhat different set of rules in each. Basically we have a good working relationship with all of the states we operate in, but there is a variation in interpretation of FHWA regulations. This is a common complaint among signal people and my colleagues in the profession have expressed a desire for uniform interpretation. I would hope that meetings such as this will help to foster a more uniform interpretation of FHWA policy.

The signal engineer is not only responsible for the original design of the control systems, but the continued monitoring of operating conditions, which may require control system design changes to fit new operating conditions. Design of control systems is predicated on providing maximum protection with a minimum of delay to the traveling public. Unnecessary and excessive operation breeds contempt for our crossing warning devices; therefore, the system, as installed, cannot be forgotten because of the everchanging railroad operating practices.

The signal engineer is also responsible for specifying and ordering the necessary material to make the installation. When making a choice between similar pieces of hardware, he will select that which provides the least amount of maintenance and longest, useful life. Cost is of secondary importance since the best possible equipment is the least expensive route, in-so-far as future expense to the railroad is concerned. Sharing of maintenance expense by the public could change this philosophy.

The field installation work is performed under the general supervision of the signal engineer and the direct supervision of the division signal supervisor. The actual work is performed by our signal construction gangs under the direction of a signal foreman. These people are either associated with a headquartered gang or a special project floating gang. In any event, they are reimbursed for their actual necessary expenses when away from headquarters or away from home, as the case may be. This cost is passed on as part of the cost of installation.

Once the original installation is complete, the future maintenance is the responsibility of the signal department. This involves setting up regular inspection and test procedure, with appropriate instructions to cover all types of equipment. It also involves troubleshooting procedures to assist the field forces in correcting malfunctions without delay. The environment in which the crossing warning devices live is most severe. They are subject to heat and cold, lightning storms and ice storms, not to mention damage by the traveling public and vandals. All of this requires regular, periodic inspections as well as emergency calls when reports of damage, or alleged improper operation, are received. Investigation after a crossing accident is part of this responsibility and we set up test procedures for our maintenance force to follow so the system will be given a complete operating test to verify its operation. The liability aspect dictates that we be thorough in our maintenance and testing procedures.

Maintenance requires the necessary expertise not only to prevent malfunctions but also to correct them. Generally, corrections are accomplished by determining the cause and correcting by the substitution method. Defective parts are then either sent to the manufacturer for repair, or are repaired in railroad's signal repair shop.

So far, I have only discussed what services the signal department performs. We are also charged with the

responsibility of training personnel to perform these functions. On the Santa Fe, we have a training program which is divided into four parts, and requires two years to complete. At the end of this period, an employee is promoted to the position of signalman and, later, as vacancies occur, they are assigned as signal maintainers, signal foremen and signal inspectors. Many of our designers are taken from this group and brought into the engineering office and trained in design concepts.

Providing trained employees is a most important part of the signal department's responsibility. Not only is the training of new employees important but retraining of old employees is necessary to keep them abreast of new developments. Without these trained employees to keep the systems we install functional, our crossing warning program would be of little value. The expense of the training process is considerable. As indicated earlier, we experience fluctuating programs which causes hills and valleys in our work force. This places a burden on our training program because of the employee attrition rate caused by lay-offs. As an example, a year ago we had approximately 15 people in training. Today we have 23 employees in training with approximately 50 more waiting to start training when classroom time becomes available. A well planned consistent program of crossing warning installation to enhance a constant work force would be a big boost to all concerned.

SCL has 10,551 public crossings

Before discussing specifically the signal department's role on the SCL, you may be interested in a general overview of the problem on the SCL and some of the things we as a railroad are doing in attempting to reduce the needless and tragic loss of life and injury at railroad-/highway grade crossings. Statistically, SCL operates 9,019 miles of railroad in six states with some 10,551 public crossings. At the present time 2,657 of these crossings are equipped with some type of active warning system. FRA reports indicate accidents at grade crossings on all railroads in the United States resulted in 1,124 deaths in 1976, an increase of 24% over 1975.

Grade crossing accidents occurring on the SCL in 1976 numbered 784, compared to 796 in 1975. Fatalities in those accidents numbered 93, compared to 99 in 1975; while injuries dropped 23% from 331 in 1975 to 255 in 1976. Interestingly, 37% of all SCL grade crossing accidents in 1976 occurred in the State of Florida. Florida accounted for 52% of the grade crossing fatalities and 42% of grade crossing injuries system-wide. While these statistics show some slight improvement, when these two years are compared, I believe it can be readily seen that the matter of highway grade crossing safety is of real concern to SCL.

What is SCL doing to meet this challenge? To name a few activities, we are active members of the National Safety Council participating through the railroad section of that organization, and have through the years been

active in the Association of American Railroads and the American Railway Engineering Association with many of our employees serving on committees specifically dealing with railroad-highway grade crossing safety. To the extent not pre-empted by federal, state or other regulatory bodies, the SCL endeavors to fulfill its safety responsibility to the public by:

Full cooperation and participation in providing active warning devices at rail/highway intersections consistent with laws and regulations of federal, state and other authorities.

Training and periodically testing our operating employees in the performance of their duties according to the laws and operating rules applicable at such intersections.

Educational work among the public. For many years, SCL has promoted the "near miss" program in connection with the National Safety Council. We encourage

Maintenance of rail-highway grade crossing warning systems represents a substantial portion of a signal department's operating budget reports Robert D. Liggett, chief engineer, communications & signals, Seaboard Coast Line.

state educational departments to call on our supervisors of safety to conduct classes for school bus drivers. Each year our safety supervisors conduct such classes before hundreds of bus drivers. Even with this wide coverage, in the school year just ended; we investigated 71 cases of unsafe operation of school buses and made positive identification in most all of them. Many of the drivers were relieved of their jobs as a result of this unsafe operation.

Our safety department maintains a film library which contains many appropriate films to cover this subject. These are used extensively by our supervisors of safety in schools and at civic meetings. Our property protection department makes spot-checks at crossings to observe vehicular traffic. Whenever violations are observed, a letter is sent to the driver telling him of the observation and pointing out the danger to which he had exposed himself. We believe that education of the driver and enforcement of existing laws can be the key to a dramatic reduction in accidents at railway/highway grade crossings.

The SCL takes an active part in the "Operation Life Saver Program" which has now been implemented in all of the states in which we operate, with the exception of North Carolina, and this state will have such a program later this year. First initiated in the State of Nebraska several years ago, the program was brought to the SCL and implemented in the State of Georgia in 1974. The four steps considered necessary to initiate the operation are listed as evaluation, education, implementation and enforcement. The program often includes placing stop signs at crossings considered to be particularly hazardous, then enforcing state laws which authorize traffic tickets for failure to obey those laws.

These are but a few of the programs and activities through which SCL attempts to bring about a reduction in accidents at grade crossings. The signal department, of course, cooperates and participates in nearly all of these endeavors. However, the design, installation and maintenance of active warning systems is our prime responsibility in the overall program.

This matter, in recent years, has taken on major proportions as a result of the recognition of public responsibility in such installations and the comparatively large amounts of funding available; this is not to say that our railroad did not have a substantial interest prior to the shift in funding responsibility. We did. Our crossing signal installations then represented an investment of some $75 million at today's costs. But relative to the normal capital funds available to the SCL signal department, the programs now underway present a major task for us to implement and to maintain.

On the SCL, the preparation of an agreement leading to an authorized project begins in the office of the assistant vice president-engineering. This may, and often does, involve several parties such as local governments, state and federal authorities, and the railroad. During this phase, the signal department is called upon for estimates of the cost of the project. Such estimates usually require field surveys and varying degrees of preliminary engineering. At this point, it should be recognized that while federal standards have been clearly established, there exists many varied requirements of the individual states, as well as inconsistencies between individual states and the federal government. The signal engineer must be cognizant of these situations in the planning and designing of warning systems. A good deal of time and effort is expended in this process and it is important that the railroads be reimbursed for their costs in the event the project never reaches the final agreement stage. Work orders authorizing reimbursement for survey and preliminary engineering costs are the most commonly used procedure for handling this activity and are provided for in the Safety Act.

When agreement is reached, the signal department then "has the ball" so to speak — final engineering must be accomplished, material ordered, assembled and construction forces programmed to make the installation. At this stage the funds for engineering, acquiring the material, and the installation costs must come solely from railroad sources and the signal department is faced with a sizeable logistics problem. While considerable effort and progress has been made since the federal commitment to rail/highway crossing safety that began in 1973 and subsequently expanded under the Federal Aid Highway Act of 1976, we, as yet, have not been able to come up with a predictable and reliable program schedule whereby both material and labor forces can be matched for the most efficient utilization of available funds. There are many factors that have contributed to this problem. However, as difficult as it may have been, we completed 638 projects on the Seaboard Coast Line during this period.

My point, however, is that SCL, and probably all railroads, can do a better job if improvement can be made in the following areas which I have listed without particular priority:

(1) Consistency (perhaps I should say enthusiasm) in state policies with respect to utilization of available funding.

(2) Uniformity in standards.

(3) Establishment of an acceptable and uniformly applied determination of priorities.

(4) A better understanding at the local government level of the public's responsibility in this program.

(5) A recognition of the problem and a uniform policy with regard to public participation in the future maintenance of these warning devices.

(6) Prepayment for acquisitions of major material requirements.

Progress in these areas would tend to stabilize the program and would better permit the signal engineer to predict and plan for manpower requirements necessary to cope with the grade crossing warning system program that must be accomplished concurrently with such capital improvement projects as traffic control systems, computerized classification yards, hot box detector systems, etc., that are authorized and funded by the railroad.

I believe you have surmised by now that planning for and arriving at the necessary labor force may be the biggest problem facing the signal engineer. Let me tell you why that is. The signal department on our road, and on most roads, is not a large organization, not that we are opposed to growing, rather our growth, of necessity, must be conservative by nature. Signaling is a unique vocation — it is not generally taught in trade schools. Beyond a basic understanding of electricity, knowledge is gained on the job learning from employees who have been in railroad signaling most of their lives.

SCL now has a formal training school for new signal department employees. This will be of great help in developing good signalmen. It's expensive and another reason that we do not want to expand forces rapidly and then through failure of programs to materialize, find it necessary to furlough men. The signal engineer, therefore, is limited to his own forces and those he can recruit and train for the manpower to accomplish the programs given his department. Unlike the road builder for example, it is simply not a question of more "machines and britches to double or triple production."

When possible, we want to do this work with our employees. I believe we can do it efficiently and, in most cases at less cost. At the same time we are developing highly trained mechanics who will ultimately move into our permanent maintenance forces. In reality, this is our only source for trained and qualified employees.

I believe the signal engineer's role is to have growth to the extent possible with the understanding he has of the program, and measured against the actualities of the program on his property. On the SCL, we have had substantial growth in our construction forces and on two occasions were able to negotiate an agreement with the organization permitting our use of supplementary forces, contractors, if you will, to cope with the heavy influx of grade crossing agreements and extra-ordinary railroad projects that may have temporarily diverted forces normally assigned to the grand crossing program. These supplementary forces are made up of trained signalmen qualified in their work and, as you might guess, are not plentiful. I believe if more missionary work were done with the local labor committees, both by the signalmen's organization and the signal engineer, that the necessity for these agreements permitting qualified contractors on the property could be better understood and that a real contribution to the overall program could be realized. On SCL, we view the use of contractors as a necessity from time to time in order to be able to cope with the fluctuation in the grade crossing program and to meet satisfactorily the time frame demands imposed by the states in which we operate. We are making progress on

AAR DOT crossing No. 805793E at 7200 South in Salt Lake City has automatic gates and flashers with supplemental red strobe lights atop regular flashers in traffic lanes (away from curb lanes). Highway traffic averages 18,700 vehicles daily with a maximum 50 mph speed. Six through trains operate at 20 mph. One mercury vapor floodlight is on one side of the crossing.

SCL in all areas that I have mentioned — to the end of successfully working with the various highway authorities in applying the funds available to them for active warning devices.

As these sytems go into service, the signal engineer is faced with another problem, and that is the maintenance for evermore. SCL is fortunate to now have three states participating in this rising expense, however, it is inconceivable to me that the railroads should continue to be burdened with even a portion of that cost. The federal government's logic in determination that such installations are a public responsibility surely must be promoted and expanded at the state and local level to also make public funds available for the continued maintenance of such devices.

The maintenance of highway grade crossing systems represents a substantial portion of our operating budget and it is increasing at alarming rates. Such factors as:

Increasing labor and material cost

Increased use of gates

More sophisticated electronic control circuits. (a particularly significant factor in our part of the country where lightning is so prevalent)

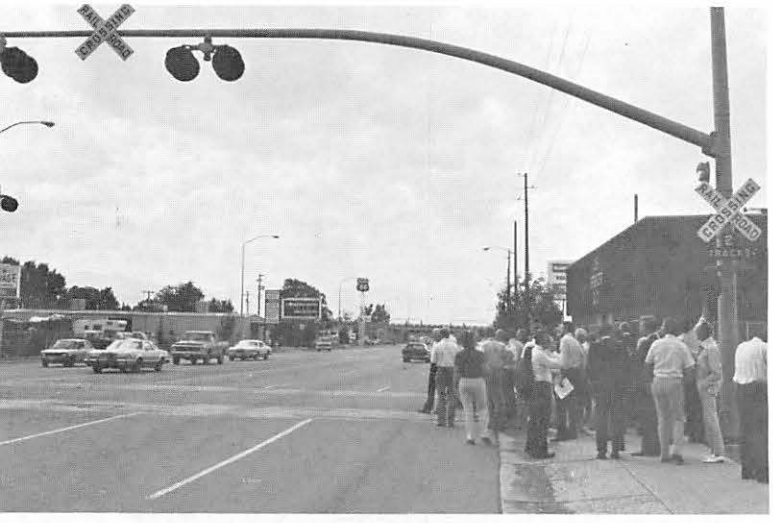
Greater "setback" requirements of roadside signals resulting in more lights, more and longer cantilevers, longer gate arms and —

Vandalism

Certainly give me concern as to our ability to continue so large a program without continued and expanded support in the area of maintenance costs.

In this vein, I would say that without the innovation (some might call it research) that has gone on through the years in developing these systems, there would be no way to cope with this problem. This has been yet another role of the signal engineer. One has only to review the proceedings of the Association of American Railroad's Signal Section to find that the development of our automatic systems lies with the signal engineers. In this area, railroad signal engineers have not only promoted reliable and efficient systems but have identified and rejected those "fly-by-night" ideas and materials that do not measure up. Through our membership in such national organizations, I believe we have made substantial contributions — many of which have ended up as national standards. I have watched, with interest, many of the ongoing federal research programs in these areas and note, with some satisfaction, that in many cases the conclusion is reached that present methods and/or devices are doing a pretty good job. Please do not misunderstand my feelings on this matter, I do not resent or oppose such research. However, I do think we should be looking at the problems while not attempting to re-invent the wheel.

Regretfully, installation of active warning devices does not eliminate accidents at grade crossings. Of the 784 accidents on SCL during 1976, approximately 30% occurred at crossings that were equipped with some type of active warning device. When such accidents involve litigation, the signal department is called upon to prepare material for hearings or trials and to "educate" our trial lawyers in the intricacies of the signal system. Our employees serve as witnesses many times against the plaintiff's expert witness, whose sole purpose is to discount the integrity of railroad warning systems. It has been my observation that we fare quite well in this type of technical scrutiny. However, verdicts, unfortunately, do not always confirm this. Largely because, in my opinion, the average jury looks more closely at the issue of large corporation versus horribly disfigured or deceased peers. The remarkably few accidents attributable to malfunction of these systems testifies to the industry's dedication to provide only the more secure and proven systems — often times in the face of considerable pressure to reduce their costs through compromise of fail-safe designs or utilization of so-called "low cost" unproven materials.



UP crossing 33rd South Street has 12-inch flashers mounted on highway-type cantilevers. Crossing is floodlighted on both sides with mercury vapor lamps. Motor vehicles average 15,550 per day traveling at 35 mph. Six through trains plus switching moves are made at 20 mph daily. Those attending the National Conference on Railroad Highway Crossing Safety visited this crossing as well as seven others in the Salt Lake City area.

RLEA to FRA: Revise radio rules

Revisions to Federal Railroad Administration radio rules should be made to prohibit use of any engine or caboose which does not have a properly functioning radio, and prohibit giving train orders to crews on moving trains. J. R. Snyder, chairman, safety committee, Railway Labor Executives' Association submitted remarks to FRA seeking revisions to Sections 220.37 and 220.61. Comments are presented herewith:

This statement is submitted in support of the Petition of the Railway Labor Executives' Associations (RLEA) for Reconsideration of Sec. 220.37 and 220.61 of the Radio Standards and Procedures.

(I) Section 220.37 Should Be Redrafted To Prohibit The Operation Or Use Of Any Engine Or Caboose *Which Does Not Have A Properly Functioning Radio.*

As the rule presently stands, there is no requirement that an engine or caboose have a functioning radio while that car is in use. The rule requires merely that a malfunctioning radio be removed from service until repaired. (Radio Standards and Procedures, Sec. 220.37.) Such a rule is patently unsafe.

The FRA, itself, recognizes the importance of radio to train safety. In the preamble to the Final Rule on Radio Standards and Procedures published in the Federal Register on January 27, 1977, the FRA states:

"In the two accidents cited by the NTSB in recommending the FRA adopt rules for the use of radio, there were three fatalities, three injuries, and over two million dollars in property damage. Since the adoption of these rules can prevent such accidents, FRA has determined that the benefits outweigh the slight costs to the Railroad industry." 42 Fed. Reg. 5066 (1977).

The Second Circuit reached this same conclusion in a similar situation involving the absence of radios on tugboats. *The T. J. Hooper*, 60 F.2d 737, 739 (2d Cir., 1932), *cert. den.* 287 U.S. 662 (1932). The Court found that the safety benefits offered by functioning radios on tugboats greatly outweighed the slight cost of installing them. The failure to install and maintain a working radio was held to have rendered the tug unseaworthy.

The importance of radios to safety in train operation has already been demonstrated. For example, effective radio transmission could have helped prevent a three-train accident in northeastern Ohio in June of 1976 in which one man was killed and seven others were injured. (See NTSB Safety Information Release, March 25, 1976.)

Radio communication prevented what might have been a fatal accident west of Greencastle, Indiana, on January 19, 1975. A Penn Central train was stopped because of an air hose separation. The automatic signals protecting the train gave a false clear signal to the train behind. An alert flagman on the stationary train heard the approaching train. When he realized that the train was not slowing down, he quickly radioed the approaching train, which stopped short of the standing train. The engineer of the following train said that had he not been radioed, he would not have stopped in time.

RLEA is not the only group urging the FRA to require radio on all trains. The National Transportation Safety Board (NTSB) has also urged the FRA to require that all trains have operable radios. In a Safety Information Press Release dated March 25, 1976, the Board reiterated its 1973 recommendation that FRA develop and enforce the use of effective radio equipment and operating rules in order to realize the radio's invaluable safety potential.

Yet, as the rule stands, a train operating without any radio commits no violation of Sec. 220.37, whereas a train operating with a useless radio is subject to a fine of $250 to $2,500. To avoid violating the radio rules, a carrier merely has to remove any defective radio or avoid installing a radio at all. RLEA fails to see how a rule with such a glaring loophole will further the goal of promoting safety on railroads. The Radio Operating Procedures should be amended to eliminate this dangerous loophole and to require that *all* trains have operating radios at all times.

(II) Subsection 220.61 Should Be Revised To Prohibit Transmission Of Train Orders To Any Member Of *The Crew While That Train Is Moving.*

Rule 220.61 permits a radio transmission of a train order while the train is in motion. This rule is clearly unsafe. The safety of the persons on board a train depends upon the proper execution of an understandable train order.

Railroads are subject to high levels of noise. The cabooses and engines which contain the radios are particularly noisy. Travel over a bad section of tracks further aggravates the problem. The steel cabooses are so noisy that it is impossible to hear a man on the other side of the same caboose, let alone copy a complicated train order accurately.

Under these conditions, a crew member receiving a train order while the train is in motion will not be able to hear or understand it. A misunderstood train order poses two serious problems. First, even a slight inaccuracy can lead to a serious accident. For instance, if a train is ordered to slow down and proceed with caution through a dangerous section of track beginning at milepost 145 but its crew copies the order as requiring it to slow down at milepost 155, the train might be derailed. Second, FRA's regulations require that a train order which cannot be understood or completed must be treated as if it were not sent.

(Sec. 220.45 of Radio Procedure Rules.) A crew member receiving a train order which cannot be understood because of the high noise level in a moving train must ignore it. Should that train order contain an instruction vital to the safety of the train, the results could be disastrous.

Even if the train order is eventually understood by the train crew, sections 220.33 and 220.61 of the Radio Procedure Rules require that the order be copied down, read back to the dispatcher, and a written copy given to both the engineer and conductor before it can be executed. A fast-moving train may pass a point on the track at which action called for in the train order should be taken before these procedures are completed and the order ready for execution. Such a failure to execute a train order in timely fashion is clearly unsafe.

Requiring a train to stop whenever it receives a radio train order insures that the train order will be clearly heard and easily understood at the first transmission. The other radio procedures can be quickly performed, and the train order will be executed at the proper time and place.

It is no solution to the problem to place the discretion to stop the train when necessary with the conductor or the engineer. Train crews are under severe supervisory pressure to increase production and to meet deadlines. An engineer or conductor working under this kind of pressure is not likely to risk the displeasure of management by stopping the train to copy a garbled train order.

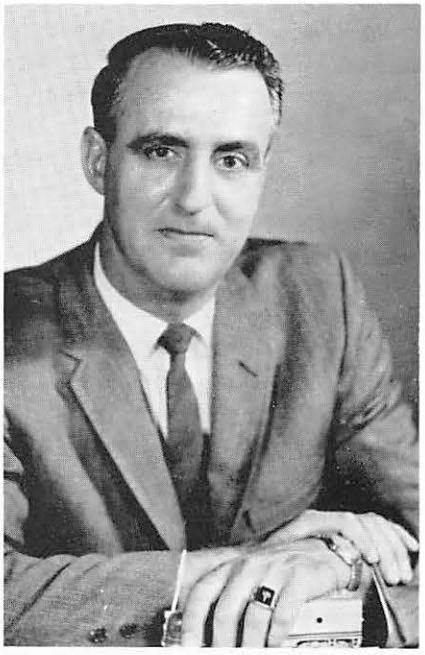
Even the NTSB has recognized the bad effect that supervisory pressure has on the safety judgments of train crews in a similar situation. In its discussion of the necessity for clear and explicit flagging rules, the Board in Report NTSB-RSS-71-3 states:

"As long as the safety of train operation depends upon the variable judgments of employees under the authority of vague operating rules, accidents will continue to occur. Supervisory pressure to increase production may contibute to defects in judgment on the unsafe side."

Safety dictates that a train be required to stop before receiving a radioed train order. The FRA Radio Operating Rule Sec. 220.61 should be amended to prohibit radio transmission of train orders while the train is in motion.

For these reasons, the Petition of the RLEA For Reconsideration should be granted and the Radio Operating Rules (49 CFR 220) be amended in accordance with the Petition.

Personal Aids and News



Railroad Retirement Board news from R. T. Bates, secretary-treasurer, BofRS

Under the Railroad Retirement Act, a "current connection with the railroad industry" is one of the requirements for supplemental annuities and occupational disability annuities. A current connection could also help an employee meet certain dual benefit vesting requirements. In addition, the existence of a current connection is one of the criteria for determining which agency — the U.S. Railroad Retirement Board or the Social Security Administration — has jurisdiction over any survivor benefits payable on the basis of an individual employee's earnings. The general purpose of the current connection requirement is to reserve these particular benefits for employees whose last regular employment before retirement or death was in the railroad industry.

(1) How is a current connection determined?

An employee has a current connection with the railroad industry if he worked for a railroad in at least 12 out of the last 30 consecutive months before his retirement annuity begins or his death. An earlier 30-consecutive-month period may be used if the employee had no regular nonrailroad employment following the period.

(2) I am 63 years old and recently retired on a reduced annuity after completing 25 years of railroad service. If I now work in a nonrailroad job, will it break my current connec-

tion so that I will be ineligible to receive a supplemental annuity at age 65?

No. An employee who has a current connection when his regular retirement annuity begins retains it permanently.

(3) I left my railroad job 3 years ago, after more than 10 years of service. Since then I have worked outside the railroad industry. Will I have a current connection if I retire now?

Probably not. You would retain your current connection only if your non-railroad work in the past 18 months is not considered to be "regular employment." If during that 18-month period you worked outside the railroad industry in any three consecutive calendar quarters, and had earnings of $300 or more in any two consecutive calendar quarters, you would be considered to have been in regular employment. As a result, your current connection would be broken. HOWEVER, SINCE YOU HAVE MORE THAN 10 YEARS OF SERVICE YOU WILL STILL, OF COURSE, BE ELIGIBLE FOR A REGULAR ANNUITY BASED ON YOUR YEARS OF SERVICE AND AVERAGE MONTHLY COMPENSATION.

(4) I have been operating my own trucking business for the past several years since working for a railroad. Could I still have a current connection?

Self-employment generally does not break a current connection unless the business is incorporated. If you had no other regular employment during those years and your business is not incorporated, you might be able to receive any benefits for which a current connection is required and for which you qualify. However, the Board also takes into account factors other than incorporation. Therefore, the Board's determination in an individual case depends on the facts relating to the individual situation.

(5) I worked regularly for a railroad until the latter part of December 1976 when I was laid off. After that I started working regularly for a company other than a railroad. If I do not return to railroad work, how long will I retain my current connection?

Your most recent 30-month period including 12 months of railroad service begins with January 1976. Therefore, if you are working outside the railroad industry and do not return to railroad work, you will retain your current connection through June 1978. Nonrailroad employment in the period after June 1978 and before the month you retire or die can break your current connection.

(6) I have been claiming sickness benefits since I ended my railroad career two years ago. I understand that sickness and unemployment benefits do not count as railroad service. Will I still have a current connection if I retire now?

Yes, if you have not engaged in any regular employment since you left your railroad job. Your current connection would be established on the basis of any 30-month period before your retirement annuity begins in which you performed at least 12 months of railroad service.

(7) After I left railroad work, I went to work for the Interstate Commerce Commission. Will this work break my current connection?

No. Federal employment with the Department of Transportation, Interstate Commerce Commission, National Mediation Board or Railroad Retirement Board will not break a current connection.

(8) How does railroad vacation pay count for purposes of a current connection?

Generally speaking, railroad vacation pay can be used as credit for a month or months of service in establishing a current connection. However, when a railroad employee is retiring, his vacation pay is usually credited to the last day he works unless this is not to his advantage.

(9) How could a current connection affect dual benefit payments?

Under the Railroad Retirement Act of 1974, the amount of social security benefits awarded a railroad annuitant retiring after 1974 is subtracted from the part of his annuity based on combined railroad and social security credits. However, this reduction may be in part restored if the retiree was insured for dual benefits prior to 1975 and meets certain other requirements. A current connection may satisfy these other requirements when an employee was insured for dual benefits prior to 1975.

(10) I receive both railroad retirement and social security benefits. I was told I had a current connection with the railroad industry when I retired 8 years ago. Is it correct that my widow will receive any survivor benefits due on the basis of both my railroad and nonrailroad earnings from the U.S. Railroad Retirement Board?

Yes, if you had a current connection when you retired, your widow can receive her survivor benefits

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Brother Stewart was very active in Brotherhood work. He served as chief signalman of Local 128 and was on the board of trustees for 8 years and a local chairman for 16 years.

J. J. Stokes, retired signal maintainer for the Rock Island at Tucumcari, NM, died recently. He had completed 38 years of service when he retired in July 1975. Brother Stokes was a charter member of Local 78 and had served as a local chairman.

Frank A. Straple, 74, retired signal helper for the Chicago & Western Indiana, at Chicago, IL, died June 15, 1977. Brother Straple had completed 16 years of service with the railway when he retired in 1967. He was a member of Chicago Lodge 32.

Harlin Tracy, retired general chairman for the former New York Central Lines West, Southern District, at Indianapolis, IN, died in August 1977. Brother Tracy was born on June 1, 1899. He had completed 44 years of service to the railway and the Brotherhood of Railroad Signalmen when he retired in January 1965. He had been very active in Brotherhood work, holding the position of chief signalman and local chairman in Givan Lodge 15.

John Whittaker, retired signal maintainer for the Union Pacific at Point of Rocks, WY, died recently. He had completed 39 years of service when he retired in December 1948. Brother Whittaker was a member of Rock Springs Lodge 8 and had served as chief signalman.

Carl A. Wolf, retired signal maintainer for the former Penn Central at York, PA, died March 13, 1977. He had completed 28 years of service when he retired in October 1970. Brother Wolf was a member of Tuxedo Lodge 65. He is survived by his wife, Pauline.

Thomas N. York, retired signal maintainer for the former Penn Central at Lyons, NY, died recently. Brother York had been active in Construction Lodge 177 and had served as lever, chaplain and as trustee. He had completed 33 years of service when he retired in July 1974.

James M. Wheatley, retired signal maintainer for the Baltimore & Ohio, at Flora, IL, died August 19, 1977. He had completed 45 years of service when he retired in 1965. Brother Wheatley had also been an assistant signal supervisor for the B&O at North Vernon, IN. He was a member of Winton Lodge 94, and the Christian Church, Masonic Lodge, Modern Woodmen and Elks of Vandalia, IL. Brother Wheatley is survived by his wife, the former Hazel Conn, one daughter Laura Greer, two grandchildren and three great-granddaughters.

Washington Report:

Railroad abandonments attract attention

By Michael Marsh

Forty-four railroads, including most of the big ones, have abandonment applications pending with the Interstate Commerce Commission, according to a recent count. These roads seek to abandon parts of their line immediately. In addition, various railroads have listed many thousands of miles of line for potential abandonment in the next three years.

Rail unions have fought this trend for many years. Especially now, with the growing threat of an energy crisis, union leaders point to the national need to preserve our rail system. Railroads are far more energy-efficient than trucks, airplanes or private autos.

Rail unions have also sought to gain protection for employes hurt by rail abandonments. Over the years Congress has gradually increased these protections, to be imposed by the ICC when it grants a railroad permission to abandon some line.

Last August, in a significant decision, an ICC panel gave the broadest possible scope to the employe protection in abandonment cases that Congress enacted in the Railroad Revitalization and Regulatory Reform Act of 1976 (the 4-R Act).

This decision by the three-member panel of the ICC — Commissioners Virginia Mae Brown, Alfred MacFarland and Betty Jo Christian — dealt with a petition by the Oregon Short Line and the Union Pacific, seeking to abandon 17.6 miles of line. However, it also affects hundreds of other cases.

Briefly, the ICC panel extended the stronger employe protective conditions imposed in the 4-R Act to all pending abandonment petitions filed prior to November 1, 1976 (when this part of the 4-R Act took effect) as well as to those filed after that date.

The ICC panel conceded that the 4-R Act does not require this extension to the earlier applications. However, the ICC commissioners said Congress intended the protection in the 4-R Act "as a minimum." The ICC, they said, has discretionary power — as recognized by the Supreme Court — to impose "additional labor protection . . . in situations which would warrant it."

In the Oregon Short Line case — filed April 9, 1975 — and in all other cases of pending abandonment petitions filed before November 1, 1976, "fair and uniform treatment of railroad employes" requires that they be brought under the new labor protection, the ICC members said.

The 4-R Act labor protection actually is the same as what was developed to protect railroaders adversely affected by creation of Amtrak, back in 1971. These are known as the "Amtrak conditions." They include protective allowances for six years from the date an employe is displaced or dismissed (but not longer than his previous employment), a possible separation payment, provision for training or retraining, and other items.

tion so that I will be ineligible to receive a supplemental annuity at age 65?

No. An employee who has a current connection when his regular retirement annuity begins retains it permanently.

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from the Board rather than the Social Security Administration. Survivor benefits, which are based on combined railroad retirement and social security credits, are payable to individual widows by only one of the two agencies. When the Board has jurisdiction, survivor benefits are 30 percent higher. In addition if a widow has social security coverage based on her own earnings and meets certain vesting requirements, she may have a dual benefit advantage which is not possible if Social Security has jurisdiction.

Railroaders with questions about their current connection or other railroad retirement matters should contact their local U.S. Railroad Retirement Board office. You can find the address in the telephone directory under U.S. Government, Railroad Retirement Board, or by asking at your post office.

Sidney Margolius reports:

What's new in auto insurance

With drivers all over the nation voicing outrage over auto insurance rate hikes of as much as 60%, as well as many arbitrary cancellations, a growing number of officials in various states are considering the possibility of having the states themselves sell insurance.

The rate hikes have occurred in most of the 24 states with so-called "no-fault" insurance laws as well as those that still have the older "tort" or fault-based insurance. Under "no fault," an injured person collects from his own company without need to show that the other driver is at fault.

However, the potential cost savings claimed by the proponents of "no fault" have proved to be exaggerated. The present disillusionment was bound to happen, as this writer previously warned, since the "no fault" plan provides no solutions for most of the real causes of high rates.

Now several officials have raised the question of whether the states themselves should sell insurance not only to try to hold down costs but to stop the many virtually capricious cancellations as more and more insurers seek to insure only the so-called "better" risks.

This is what the insurance industry calls "skimming the cream," with companies seeking to sell policies only to drivers with no accidents or violations on their record; who don't live in poor neighborhoods, usually the center city; who keep cars garaged; and who are in preferred ages (neither young or old).

Usually drivers whose insurance is cancelled have to go to higher-cost companies or into the costly "assigned risk" pools where they must pay extra premiums on top of the recent rate increases to get any insurance at all. As we've previously reported, even some drivers previously considered good risks now are being pushed into assigned risk pools.

In Philadelphia recently, the Consumers Education and Protective Association (CEPA) held a public meeting to protest proposed increases of 62% in assigned-risk rates. CEPA complained that some inner city neighborhoods are "red lined," with companies avoiding insuring drivers in those areas.

Insurance companies have become increasingly arrogant about refusing insurance. The president of one of the largest recently questioned whether everybody should have the "right" to drive.

This, of course, is not a right that should be determined by an insurance company.

With car owners now being squeezed between the rock of leaping rates and cancellations, and the hard place of state-mandated compulsory insurance, several officials say they are considering state-run insurance pools.

One of the frankest statements has come from Oregon Insurance Commissioner Lester Rawls. He told the Oregon Labor Press that it may be necessary for the state to provide the insurance because of the exclusionary and elitist underwriting rules applied by private companies. Rawls also is supporting a bill in the Oregon legislature to require insurers to file copies of their underwriting rules with the state. This would let the Commissioner and the public evaluate the degree of discrimination.

In New York, another state hard hit by increases and cancellations, State Superintendent Thomas Harnett has said he will recommend standby legislation for a state-run pool.

Maryland already is experimenting with a state pool for drivers refused coverage by private insurers, and is trying to solve the problem that the private companies skim off the better risks and leave those with poorer safety records to the state pool

Puerto Rico also has a government-operated insurance pool as do several Canadian provinces. Earlier, Joe Davis, President of the Washington State Labor Council, called for consideration of a non-profit state fund to provide insurance. He and others have pointed out that states successfully operated their own workmen's compensation funds.

But don't hold your breath waiting for the Oregon legislature to let the state get into the auto insurance

business. The Labor Press warned readers "not only does the insurance industry have influential lobbyists, there also are influential legislators who make their living from the insurance industry."

Many drivers meanwhile are dropping collision insurance on older cars or taking higher deductibles such as $200, and also taking deductibles on comprehensive damage coverage.

Unfortunately, not all states with "no fault" laws require insurers to offer an exclusion option coordinated to other health and accident coverage and employer-paid sick leave. Usually your other policies such as Blue Cross can provide equivalent health insurance benefits at lower cost if you're injured in a car accident.

In states that do allow this option, it's advisable to take it. Unfortunately, many drivers don't. In Michigan, whether the option is available, the insurance department says taking these options for personal injury protection can reduce the total insurance cost 10 to 15%

Beware of ads promising easy ways to earn money

Older people seeking to eke out retirement incomes, youngsters looking for a trade or business, and workers hoping to supplement modest incomes are the constant target of promoters promising big profits from dubious investments.

These promotions often are advertised in classified ads in newspapers and magazines, sometimes under "Business Opportunities" headings. More accurately, many should be called "Money-Losing Opportunities." Even more cruelly, some of these snares are listed under "Jobs" or "Help Wanted."

On occasion publishers themselves have admitted that they don't screen such classified ads. Some of the most respectable and wealthiest newspapers have published them even when a careful eye might have detected the signs of potential deception.

In contrast, the nation's local labor papers have set strict standards by rejecting recently a number of questionable ads which are being run in many commercial publications, reports Alex Smith, President of Trade Union Advertising, labor press representatives. These incidents can serve as warnings against dubious promotions.

One promoter was refused space in the union papers for ads seeking investments in postage stamp dispensers. The advertiser claimed his firm would find locations. But the Better Business Bureau advises that many such locations in the past produced few sales. Eventually stores that initially allowed installation would have the machine removed and the investment would prove practically worthless.

Another would-be advertiser whose request for space was refused by the labor press does advertise widely in commercial newspapers and magazines, Smith reports. Readers are invited to send for information about how their inventions could be promoted and made profitable.

But the Better Business Bureau reported that the firm in question was being sued by the New York and California Attorneys General, and was cited by the Federal Trade Commission for non-performance of services for which it was collecting substantial sums. The company required a payment of hundreds of dollars to have inventions promoted. Complainants stated they did not deliver the advertised services.

A so-called "research" organization sought to advertise in 100 labor publications that readers could earn substantial sums for their opinions on products sent for evaluation. Again, a check with the Better Business Bureau found that the firm gave

national electric control co.

- Paired Communication Cable • Railroad Underground and Aerial Signal Cable
- Track Wire • Bond Strand • Case Wire
- Nickel Cadmium Batteries • Battery Chargers • Track Rectifiers

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ELK GROVE VILLAGE
ILLINOIS 60007
312-593-8100

NATIONAL ELECTRIC GATE CO.

national electric gate co.

- Wooden and Fibre-Glass Gate Arms
- Gate Arm Products
- Lamps—Mechanisms

practically nothing for the money received. The advertising was refused. A few months later the firm was indicted for fraudulent soliciting of funds. Soon after it petitioned for bankruptcy.

Various government agencies themselves are having to run hard to keep up with "opportunity" promotions. In reporting an increase in consumer losses from mail deception, the postal authorities commented that the promotions are getting more sophisticated while the public is not, which makes the public more susceptible.

Recently a number of earthworm investment promotions became the target of legal complaints. Young people especially may be lured by the prospect that for a few hundred dollars they can be "ranchers."

California law officials rode out after one promoter, charging that the Circle "O" Worm Ranches, Inc., of Nevada, misrepresented the potential demand and profits. Prospective investors were led to believe that the number of worms in a bin bought for $475 would double every two months and could produce an income of almost $4,000 a month within a year. But, said California Attorney General Evelle J. Younger, worm production depends on a variety of factors, and profits and demand are far less than was represented.

The defendants had claimed that there were expanding markets for the worms for garbage disposal in Japan and for human consumption in Taiwan. But no such markets exist, the authorities said. They also charged that the promoters misrepresented the demand for worms by zoos and fish hatcheries and for bait and pet food.

What about Pachinko? Can you supplement your income by owning a few machines? Pachinko machines are vertical pinball machines popular in Japan. But one company which sold them for $895 to $1,900 ran into legal trouble because of what authorities said were "grossly" exaggerated claims of potential income.

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Send resume to Personnel Department, Western-Cullen Hayes, Inc., 2700 West 36th Place, Chicago, IL 60632.

An Equal Opportunity Employer

You've probably seen those magazine ads claiming you can make money selling mink bow ties, cuff links and flowers. The promoters, a New York company called Unique Ideas, Inc., ultimately were convicted of mail fraud on charges of bilking thousands of people out of over $1 million.

One of the ads claimed that the operator of the company made $35,000 in one day while ill at home, and offered to "share" a list of potential buyers for fees from $60 to $695. Now that he's been sentenced to five years in jail he ought to have time to make a lot of money.

Despite legal actions by postal and other authorities, "work at home" schemes may be the most persistent snare. The Detroit Better Business Bureau reports that in just one recent month it received over 150 inquiries asking information and such offers as envelope stuffing and addressing.

Judging from the number of mail fraud cases, another widespread trap, involving many thousands of small investors and job seekers each year, is misrepresented distributorships and franchises. Currently the products most often involved are auto parts and home cleaning items.

In a typical case, Rocky Mountain Enterprises of Denver, Inc., was convicted of fraud for selling distributorships for $2,000 to $4,000, for auto parts, non-nicotine cigarettes and sporting goods. The auto parts were described by legal authorities as inferior, and costlier than similar items in stores, and buyers complained about the taste and smell of the lettuce cigarettes.

Even Glen Turner, whose previous ventures such as Dare to Be Great, Koscot Cosmetics and others have been subjects of widespread legal actions, is back recruiting agents to sell "Welcome to Our World" motivation courses on a commission basis.

Christmas Seals

Fight Lung Disease

With these Christmas Seals the children of America celebrate life and breath

On this year's Christmas Seals the children of America express their feelings about Christmas.

Christmas Seals have helped conquer tuberculosis and are hard at work on the other dangers. Your contribution for Christmas Seals will help lung health for everyone.

And your use of Christmas Seals will tell everyone else to help too. Act today. It's a matter of life and breath.

We all share the same air. And we care about every breath you take. We really do.

Give to Christmas Seals.

AMERICAN LUNG ASSOCIATION

The "Christmas Seal" People

We care about every breath you take

Obituaries

Herbert M. Acres, retired signal helper, Boston & Maine, at Boston, MA, died recently. Brother Acres had 43 years of service when he retired in 1965. He was a member of Bay State Lodge 120 and had served as trustee.

Clyde W. Ankeney, Sr., retired signal maintainer, Western Maryland at Hancock, MD, died in June 1977. He had completed 30 years of service when he retired in January 1976. Brother Ankeney was a member of Monumental City Lodge 31. He is survived by his wife, Catherine; three daughters: Mrs. Jane Shupp, Mrs. Nellie Miller, and Mrs. Lois Crabtree; three sons: Clyde W. Jr., Howard, and Douglas M.; four sisters; two brothers; 17 grandchildren; and 5 great-grandchildren.

Stanley Arrowood, signal maintainer, Chesapeake & Ohio, at Ashland, KY, died June 27, 1977. Brother Arrowood was a member of Evans Lodge 221.

Paul J. Bangert, retired assistant signal engineer for the Norfolk & Western at Decatur, IL, died April 27, 1977.

Frank L. Bath, retired communication & signal inspector for the former Pennsylvania at Cincinnati, OH, died May 15, 1977. Brother Bath had over 46 years of service when he retired in 1957. He was active in Cincinnati Division Lodge 82 and had served as local chairman and chief signalman.

Lester C. Belknap, retired signal helper, Norfolk & Western, at Sherrodsville, OH, died June 27, 1977. Brother Belknap had completed 34 years of service when he retired in 1974. He was a member of Wheeling Lodge 197.

George W. Boothroyd, retired assistant signal maintainer for the Norfolk & Western, at Lafayette, IN, died in October 1976. Brother Boothroyd had over 39 years of service when he retired in 1965. He was a member of Lodge 169.

Raymond W. Dawson, retired signal maintainer at Newton, KS for the Santa Fe Railway, died June 2, 1977. Brother Dawson retired November 15, 1965 after completing 43 years service. He was a member of Midwest Local 33. The officers and members of Local 33 extend their deepest sympathy to his wife and family.

Albert F. Drexinger, retired signalman for the Lehigh Valley at White Haven, PA, died June 12, 1977. He had completed over 30 years of service when he retired in 1960. Brother Drexinger was a member of Wyoming Lodge 59. He is survived by his wife, Alice, who resides in Wilkes-Barre, PA.

Foy W. Driggars, retired signalman, Missouri-Kansas-Texas, at Denison, TX, died in May, 1977. Brother Driggars had 32 years of service when he retired in 1974, the last 20 of which he spent in the railroad signal shop repairing relays and other signal equipment. He was active in Labette Lodge 116 and was recording and financial secretary at the time of his retirement. Brother Driggars is survived by his wife, Myrtle, and five sisters.

Bert F. Durr, retired signalman for the Pacific Electric at Culver City, CA, died recently. Brother Durr had completed 32 years of service when he retired in 1961. He was a member of Pacific Electric Lodge 100.

Thomas E. Dymock, 57, signal maintainer for ConRail at West Lorne, Ont., died April 7, 1977. Brother Dymock had over 36 years of service and he was a member of St. Thomas Lodge 27.

George F. Eckenstaler, retired signal maintainer for the former Pennsylvania, in Chicago, IL, died April 17, 1977. He had completed 49 years of service with the railroad when he retired in 1964. Brother Eckenstaler had been active in Keystone Lodge 69 and had served as chief signalman. He is survived by his wife, Alice.

William I. Fort, retired signal helper at the Ocala, FL signal shop of the former Seaboard Airline, died October 31, 1976. He had completed 41 years of service when he retired in 1969. Brother Fort was active in former Local 105 and had served as recording secretary. He is survived by his wife, Ethel; four daughters: Mrs. Betty Carter, Mrs. W. A. Ball, Katherine, and Mrs. Julia Ann Slusser; a son, W. I.; 12 grandchildren; and two great-grandchildren.

William A. Dye, retired leading signalman, Norfolk & Western, died April 24, 1976. Brother Dye had worked at the Decatur, IL signal shop of the former Wabash. He had completed 40 years of service when he retired in 1965. He was a member of Wabash Lodge 55.

Leonard H. French, retired signal maintainer for the Norfolk & Western, at Mansfield, IL, died May 5, 1977. He has completed over 22 years of service when he retired in 1966. Brother French was a member of Wabash Lodge 55. He is survived by his wife, Beatrice; a brother; a sister and several nieces and nephews.

Royce Galbreath, retired signal maintainer for the former Pennsylvania, at Columbia City, IN, died May 13, 1977. He had completed over 34 years of service when he retired in 1959. Brother Galbreath was a member of Victory Lodge 73. He is survived by his wife, Ruth; a son, Stanley; four daughters; Mrs. Inez Devenney, Mrs. Ruth Davis, Mrs. Mary Stouder and Mrs. Betty Evans; one step-daughter, Mrs. Lela Ackey; 16 grandchildren, 10 step-grandchildren, 12 great-grandchildren, 13 step-great-grandchildren; and one brother.

John J. Halloran, retired signal maintainer for the former New York Central, at Hudson, NY, died June 5, 1977. He had completed 30 years of service when he retired in 1965. Brother Halloran was a member of Construction Lodge 177.

Joseph S. Hammond, retired traveling signalman, Illinois Central Gulf, died May 22, 1977. A resident of Jackson, MS, at the time of his retirement, Brother Hammond had completed 27 years of service when he retired in 1974. He was a member of Miss-Lou Lodge 107.

T. H. Harker, retired assistant signal maintainer for the former New York Central at Elkhart, IN, died in June, 1977. Brother Harker had completed 41 years of service with the railroad when he retired in 1948. He was a member of Elkhart Lodge 83.

David S. Higgins, retired communications & signal maintainer, for the former Penn Central, at Logansport, IN, died in September, 1977. He had completed 47 years of service when he retired in 1974. Brother Higgins was active in Duclos Lodge 146 and had served as chief signalman.

Roy Hill, retired signal maintainer for the Chesapeake & Ohio, at Allen, KY, died in July, 1977. Brother Hill had over 25 years of service when he retired in 1971. He was active in Brotherhood work and had served as a trustee, and also as inside semaphore of Evans Lodge 221.

Raymond J. LaFoe, retired signal testman for the Rock Island, passed away June 21, 1977. Brother LaFoe retired January 1, 1974 after 48 years service, most of it spent at El Reno, OK. He was an active member of Martin Lodge 17 and had served as chief signalman. Brother LaFoe continued to attend most meetings after his retirement. He was a member of the Sacred Heart Catholic Church and the Knights of Columbus, Council No. 767. He is survived by his wife, Mary Ann; five sons, three daughters, one brother, and one sister. The officers and members of Local 17 extend their deepest sympathy to the family of Brother LaFoe.

Thomas F. Lennon, retired signalman for the former Penn Central, at New Haven, CT, died January 2, 1977. Brother Lennon had 39 years of service when he retired in August 1975. He was a member of Nutmeg Lodge 7.

Frank J. Mashek, retired signal technician for the Long Island at Jamaica, NY, died April 23, 1977. He had completed 40 years of service when he retired in 1963. Brother Mashek was very active in Aeriel Lodge 56, and had served as recording and financial secretary, local chairman and general chairman. He is survived by his wife, Mildred, who is a resident of Madelia, MN.

L. H. Matzke, retired signal maintainer for the Southern Pacific, at Hempstead, TX, died March 23, 1977. Brother Hempstead had been active in Gulf Coast Lodge 99 and had served as local chairman. He had completed 52 years of service when he retired in December 1971.

John L. McGuire, a member of Rock Springs Local 8, on the Kansas Division with the Union Pacific, passed away August 11, 1977 at Salina, KS. Brother McGuire started work with the signal department March 15, 1917 and retired in 1960 after 43 years of service. He was maintainer, foreman of signal gang and general CTC maintainer at Marysville, KS, when he retired. He was 82 when he passed away at St. John's Hospital at Salina. He was born June 15, 1895 at Highland, WI and was a member of the Sacred Heart Catholic Church, Knights of Columbus, Salina Elks Lodge and American Legion. He is survived by his widow, Mary Ellen, 512 W. Walnut at Salina, KS. Burial was in Mt. Calvary Cemetery at Salina. Local 8 officers and members wish to extend our deepest sympathy to his widow.

E. A. Moore, retired editor and manager, The Signalman's Journal, died in March 1977. Brother Moore worked on TSJ from the early 1930's until April 1948.

Paul C. Murphy, retired signal maintainer for the Canadian National, at Portland, ME, died recently. He had over 43 years of service at the time of his retirement in 1953. Brother Murphy was a member of Young Pioneers Lodge 118.

Leland E. Owen, retired signal maintainer for the Southern Pacific, died recently. Brother Owen retired in 1974 and was a resident of Atascadero, CA. He was a member of P. J. Lukes Lodge 153.

Charles K. Robison, retired signal and train control inspector with the Federal Railroad Administration and the Interstate Commerce Commission, died May 22, 1977. Prior to joining the ICC in 1957, Robison had worked in the signal departments of the Illinois Central and the Canadian National. Upon retirement, he moved to Fort Myers Beach, FL, where he was membership chairman of the Fort Myers Beach Power Squadron. He is survived by his wife, Ruby, and a half-brother.

Stephen E. Rogerson, retired signal maintainer for the former Pennsylvania at Dravosburg, PA, died September 9, 1976. He had completed 37 years of service upon retirement in 1953. Brother Rogerson was a member of Greensburg Lodge 62.

Paul C. Shultz, retired assistant foreman, communications & signals, former Pennsylvania, at East Palestine, OH, died in November 1976. Brother Shultz had over 47 years of service when he retired in 1957. He was a member of Unity Lodge 2.

Forrest Stewart, retired signalman for the Chesapeake & Ohio, at Barboursville, WV, died February 17, 1977. Brother Stewart worked at the reclamation plant and signal shop. He had completed 49 years of service when he retired in August 1971.

YOU'RE INVITED TO GET UNDER OUR SKIN.

UNDER EVERY TOUGH CHEVY FLEETSIDE PICKUP THERE'S ANOTHER TOUGH CHEVY PICKUP.

When we say Chevy trucks are built to stay tough, we mean it. There are two tough steel walls in the Fleetside tailgate, pickup box sides, front fenders and hood. That's toughness where it's needed most. And that's one more good reason Chevy Fleetside pickups make such an impressive investment for your job.

Corrosion resistance to match.

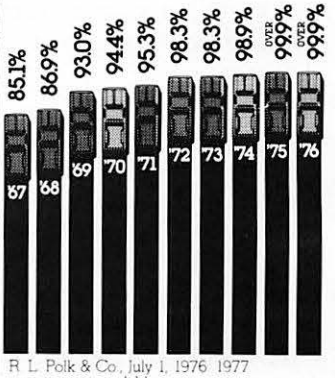
Chevy pickups are given extensive corrosion resistance treatments. For example, up front, inner and outer fender and hood panels are sprayed with an anti-corrosion compound before assembly. In the back, Fleetside pickup box steel floor, sidewalls, front panel and tailgate are electrically charged and immersed in primer for corrosion resistance in those hard to get at places.

A word about engines.

Chevrolet pickup trucks are equipped with GM-built engines produced by various divisions. See your dealer for details.

Built to last. Look at the record.

95.7% of all Chevy trucks, in the ten most recent model years recorded, were still on the job. This is based on the latest available industry model year registration statistics through July 1, 1976.



R. L. Polk & Co., July 1, 1976. 1977 statistics not available.

Double-wall pickup box.

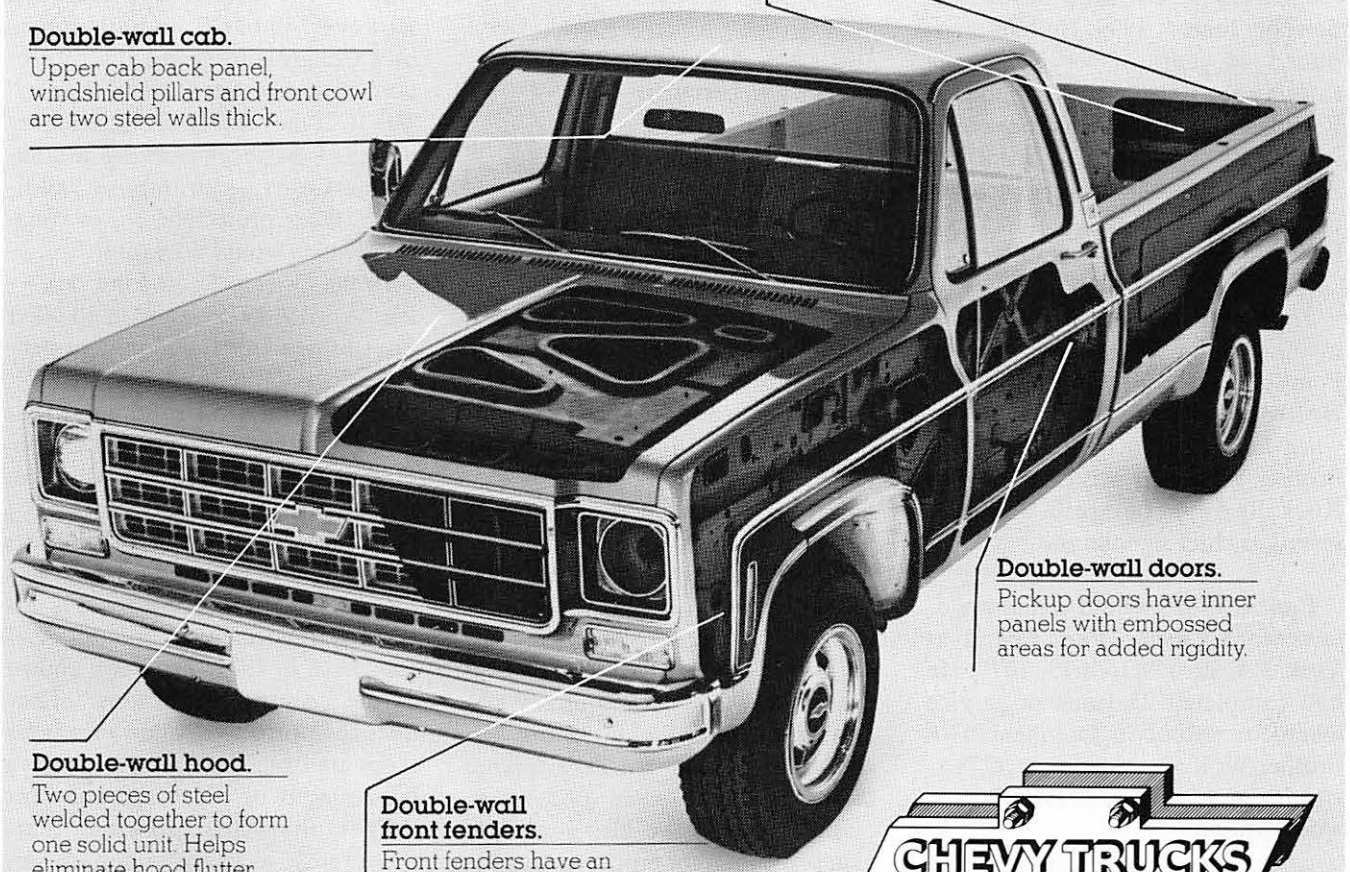
Sidewalls are double walled from top to bottom to provide structural rigidity. Also, inner wall prevents shifting cargo from marring exterior wall.

Double-wall tailgate.

Fleetside tailgate is double walled, with deep, embossed surfaces on the inside for rigidity.

Double-wall cab.

Upper cab back panel, windshield pillars and front cowl are two steel walls thick.



Double-wall doors.

Pickup doors have inner panels with embossed areas for added rigidity.

Double-wall hood.

Two pieces of steel welded together to form one solid unit. Helps eliminate hood flutter.

Double-wall front fenders.

Front fenders have an embossed steel inner wall. Also, a self-washing inner fender skirt to help protect engine from salt spray, flying stones.

CHEVY TRUCKS

BUILT TO STAY TOUGH.

Brother Stewart was very active in Brotherhood work. He served as chief signalman of Local 128 and was on the board of trustees for 8 years and a local chairman for 16 years.

J. J. Stokes, retired signal maintainer for the Rock Island at Tucumcari, NM, died recently. He had completed 38 years of service when he retired in July 1975. Brother Stokes was a charter member of Local 78 and had served as a local chairman.

Frank A. Straple, 74, retired signal helper for the Chicago & Western Indiana, at Chicago, IL, died June 15, 1977. Brother Straple had completed 16 years of service with the railway when he retired in 1967. He was a member of Chicago Lodge 32.

Harlin Tracy, retired general chairman for the former New York Central Lines West, Southern District, at Indianapolis, IN, died in August 1977. Brother Tracy was born on June 1, 1899. He had completed 44 years of service to the railway and the Brotherhood of Railroad Signalmen when he retired in January 1965. He had been very active in Brotherhood work, holding the position of chief signalman and local chairman in Givan Lodge 15.

John Whittaker, retired signal maintainer for the Union Pacific at Point of Rocks, WY, died recently. He had completed 39 years of service when he retired in December 1948. Brother Whittaker was a member of Rock Springs Lodge 8 and had served as chief signalman.

Carl A. Wolf, retired signal maintainer for the former Penn Central at York, PA, died March 13, 1977. He had completed 28 years of service when he retired in October 1970. Brother Wolf was a member of Tuxedo Lodge 65. He is survived by his wife, Pauline.

Thomas N. York, retired signal maintainer for the former Penn Central at Lyons, NY, died recently. Brother York had been active in Construction Lodge 177 and had served as lever, chaplain and as trustee. He had completed 33 years of service when he retired in July 1974.

James M. Wheatley, retired signal maintainer for the Baltimore & Ohio, at Flora, IL, died August 19, 1977. He had completed 45 years of service when he retired in 1965. Brother Wheatley had also been an assistant signal supervisor for the B&O at North Vernon, IN. He was a member of Winton Lodge 94, and the Christian Church, Masonic Lodge, Modern Woodmen and Elks of Vandalia, IL. Brother Wheatley is survived by his wife, the former Hazel Conn, one daughter Laura Greer, two grandchildren and three great-granddaughters.

Washington Report:

Railroad abandonments attract attention

By Michael Marsh

Forty-four railroads, including most of the big ones, have abandonment applications pending with the Interstate Commerce Commission, according to a recent count. These roads seek to abandon parts of their line immediately. In addition, various railroads have listed many thousands of miles of line for potential abandonment in the next three years.

Rail unions have fought this trend for many years. Especially now, with the growing threat of an energy crisis, union leaders point to the national need to preserve our rail system. Railroads are far more energy-efficient than trucks, airplanes or private autos.

Rail unions have also sought to gain protection for employes hurt by rail abandonments. Over the years Congress has gradually increased these protections, to be imposed by the ICC when it grants a railroad permission to abandon some line.

Last August, in a significant decision, an ICC panel gave the broadest possible scope to the employe protection in abandonment cases that Congress enacted in the Railroad Revitalization and Regulatory Reform Act of 1976 (the 4-R Act).

This decision by the three-member panel of the ICC — Commissioners Virginia Mae Brown, Alfred MacFarland and Betty Jo Christian — dealt with a petition by the Oregon Short Line and the Union Pacific, seeking to abandon 17.6 miles of line. However, it also affects hundreds of other cases.

Briefly, the ICC panel extended the stronger employe protective conditions imposed in the 4-R Act to all pending abandonment petitions filed prior to November 1, 1976 (when this part of the 4-R Act took effect) as well as to those filed after that date.

The ICC panel conceded that the 4-R Act does not require this extension to the earlier applications. However, the ICC commissioners said Congress intended the protection in the 4-R Act "as a minimum." The ICC, they said, has discretionary power — as recognized by the Supreme Court — to impose "additional labor protection . . . in situations which would warrant it."

In the Oregon Short Line case — filed April 9, 1975 — and in all other cases of pending abandonment petitions filed before November 1, 1976, "fair and uniform treatment of railroad employes" requires that they be brought under the new labor protection, the ICC members said.

The 4-R Act labor protection actually is the same as what was developed to protect railroaders adversely affected by creation of Amtrak, back in 1971. These are known as the "Amtrak conditions." They include protective allowances for six years from the date an employe is displaced or dismissed (but not longer than his previous employment), a possible separation payment, provision for training or retraining, and other items.

NEWS from CANADA

Railway unions serve wage notice

At a dinner honoring J. E. Dubois, who recently retired as general chairman and general secretary, the Canadian Executive Committee and BofRS Grand Lodge Officers presented Brother Dubois with a plaque honoring him for his many years of fine service to the Brotherhood, plus some "mad money" to spend for enjoyment during his retirement years. Shown here, left to right, are: John E. Platt, BofRS vice president; R. T. Bates, BofRS secretary-treasurer; Mrs. Frances Dubois; J. Emmett Dubois; A. Cunningham, general chairman and general secretary; R. R. Mitchell, general chairman and grand lodge representative; A. N. Cotton, retired grand lodge representative; and C. J. Chamberlain, BofRS president.

The wage notice served October 1, 1977 on the Canadian railways calls for improvements in wage rates, pensions and job security as priority issues. The Brotherhood of Railroad Signalmen is a member of the Associated Railway Unions which served the notice on 13 railways in Canada. Other specific demands include:

— Increasing sick benefits to 80% of salary from the current maximum of $147 per week.

— Increasing group life insurance coverage to $20,000 from $7,000.

Canadian Executive Committee met in Montreal recently. Shown here, seated left to right, are: J. R. Dickson, trustee; R. T. Bates, BofRS secretary-treasurer; J. E. Platt, BofRS vice president; C. J. Chamberlain, BofRS president; R. R. Mitchell, general chairman and grand lodge representative; J. E. Dubois, retired general chairman and general secretary; and R. E. York, assistant general chairman, CP Rail. Standing, left to right, are: E. Lafranchise, trustee; A. N. Cotton, retired grand lodge representative; D. McManus, assistant general chairman, Canadian National; J. McCormick, chairman board of trustees; A. Cunningham, general chairman and general secretary and member BofRS grand board of trustees; H. Hueston, assistant general chairman, Ontario Northland; D. McAlpine, assistant general chairman, Toronto, Hamilton & Buffalo; R. A. Pellow, assistant general chairman, CP Rail; R. E. McCaughan, assistant general chairman, Canadian National; and L. P. Morin, assistant general chairman, Toronto Terminals.

— Establishing dental, drug and vision care plans.

— Increasing the number of paid holidays to 12 from 10.

— Reduced service requirements for paid vacations.

— Increasing overtime rates to double time.

— Prohibiting the contracting out of work.

— Introduction of a sick leave plan.

— Term of the agreement to be one year.

The full notice is printed below.

WAGES: January 1, 1978, all rates of pay in effect December 31, 1977 of the employees represented by the Associated Railway Unions shall be increased by an amount composed of the following increases:

First, all rates of pay in effect January 1, 1977, shall be adjusted to compensate for the cost of living increase during 1977 in the amount not provided for in the 1976-1977 settlements.

Second, an increase to eliminate the inequities created in the past so that all rates of pay be raised to the level it should be.

Third, an increase to ensure that all employees represented by this group get their fair share of the increase in real national product; this increase shall be equal to the long run increase in productivity per man-hour.

Fourth, an increase to ensure that all employees represented by this group are fully protected against the effects of inflation on their wages and salaries.

COST OF LIVING CLAUSE: A cost of living clause shall be incorporated in the agreement in order to fully guarantee the protection of real wages.

OVERTIME: All agreements shall be amended to provide for "double time payment for all overtime worked wherever time and one-half is paid." All agreements shall be amended to provide for minimum call-in pay of four (4) hours at the prevailing overtime rate.

PREMIUM PAY: Effective January 1, 1978 all agreements, shall be amended to provide for premium payment for employees who perform work on Saturday and/or Sunday with due regard to the provisions of the collective agreements governing work performed on rest days, such premium payment shall be 25¢ per hour.

SHIFT DIFFERENTIAL: Effective January 1, 1978, the existing shift differential to be increased from 15¢ to 25¢ and from 20¢ to 30¢ for all hours worked on the afternoon and/or night shifts. Such differentials shall be included in the calculations of overtime pay, and shall apply to all employees covered by this notice.

PENSIONS: (1) Automatic escalation of all pensions in payment to adjust for increases in the cost of living.

(2) Survivor pension to be 75% of employee's pension.

(3) No reduction in formula pension on voluntary early retirement after 30 years of service.

(4) Re-opening of the pension plans to permit participation by employees who do not now participate.

(5) Pension benefits to be based on the best 36 months of service instead of the present 60 months of service.

JOB SECURITY – TECHNOLOGICAL, OPERATIONAL, ORGANIZATIONAL CHANGE. – MATERIAL CHANGE RULES: The Unions party to the Job Security-Technological, Operational, Organizational Change Agreement, dated March 1, 1976 (Non-Ops, Shopcrafts) and the Material Change Rules (UTU., BLE.) are desirous to amend and improve such agreements. Such negotiations shall be in concert with the National wages and rules negotiations specific request for amendments shall be submitted in due course.

EMPLOYMENT SECURITY: All employees with two years or more of service shall be provided with an employment security programme.

CONTRACTING OUT: All existing Collective Agreements shall be amended to provide that work performed by employees coming within the scope of any such agreement shall not be contracted out and shall not be performed by non-schedule employees or supervisory personnel.

SICK LEAVE: All employees covered by this notice, shall accumulate sick leave at the rate of one and one-half days per month. The rate of pay during sickness shall be at the employee's existing hourly, daily, weekly or monthly rate of pay of the position worked at the time of sickness. For all other employees, the rate of pay shall be the rate of the position last worked. Any unused credits shall be paid to the employee in a lump sum upon retirement or on separation from Company service.

EMPLOYEE BENEFIT PLAN

Weekly Indemnity: Effective January 1, 1978, weekly indemnity benefits shall be paid at the rate of 80% of basic salary with a minimum to be

For Canadian residents only:

Allow 6 weeks for change to take effect.

Moving? Let us know!

Please send your new address to:

Brotherhood of Railroad Signalmen, 1396 St. Catherine St. W., Suite 323, Montreal, Que. H3G 1P9

Name _____

Street or Box No. _____ **Apt. No.** _____

City _____ **Province** _____ **Zip** _____

Lodge No. _____ **Certificate No.** _____

APPENDIX "A"

(1) Full payment of away-from-home expenses (meals, lodging, etc.) All time travelling outside regular assigned hours; on rest days and general holidays, shall be paid at the prevailing overtime rate.

(2) No loss of time for doctor or dentist appointments.

(3) All Agreements to include a protective clothing clause which would provide that the Company supply the necessary clothing or in lieu of, a clothing allowance.

(4) When an employee is requested to work overtime and finishes working after 11:00 p.m., Company to ensure employee has Company paid transportation to residence.

(5) Loss of wages in emergent situation to be expanded to include all transit disruptions.

(6) A meal allowance of not less than $4.50 paid to employees working three or more hours of overtime.

(7) Employees promoted to non-scheduled positions, shall pay full union dues to maintain seniority rights under any Collective Agreement.

(8) Employees required to train employees, shall be paid at the rate of time and one-half.

(9) Waiting and travelling time shall end and/or begin at the employee's residence.

(10) Company to provide, free of charge, payroll deduction for credit union purposes.

(11) Company to provide free parking and "plug-in" for all employees.

(12) All disciplinary remarks to be removed from an employee's file after completion of one year of good conduct.

(13) Established positions will not be left vacant or consolidated during holiday periods, sickness, etc.

(14) Northern living allowance to be paid to all employees who work in areas where allowances are paid to federal or provincial employees.

(15) Company to co-operate to establish a joint service to provide assistance and guidance prior to retirement.

(16) Employees suffering an accident in the performance of his duties, to receive full regular wages for day on which accident occurred.

(17) In emergencies, Company to provide, free of charge, suitable transportation to take employee to hospital.

(18) The Company shall pay the full cost where employees are required to purchase tools.

(19) National Standardization of rates of pay for operators of motor vehicles in C.N. Express, P. & D. and highway service.

determined after any wage adjustments as a result of this notice are made.

Medicare Allowance: Effective January 1, 1978, the Medicare allowance shall be increased to $35.00 per employee, per month, to cover basic hospital, medical and surgical benefits for employees covered by this notice.

Life Insurance: Effective January 1, 1978, Life Insurance coverage shall be increased to provide $20,000.00 for active employees and $5,000.00 for retired employees and include a provision for long term disability insurance.

Dental-Orthodontic-Drug and Vision Care Plan: A dental-orthodontic-drug and vision plan shall be implemented at the earliest possible date to cover all employees and their families represented by the Unions party to this notice. The cost of such Plan to be fully paid by the Companies. In provinces where such coverage is provided in whole or part by legislation, the Company shall remit to each employee, each month an allowance equivalent to the cost of such coverage.

VACATIONS: All Collective Agreements shall be revised to grant vacations with pay on the following basis:

Six weeks after 25 years service; Five weeks after 20 years service; Four weeks after 10 years service; Three weeks after 3 years service; and one additional day for each year of service after 25 years.

All Collective Agreements shall be amended to provide that an employee may at his option elect vacation pay based on a percentage of earning for the previous year or per diem, whichever is greater as follows:

Two weeks pay or 4%; Three weeks pay or 6%; Four weeks pay or 8%; Five weeks pay or 10%; Six weeks pay or 12%.

For vacation beyond six weeks, the same formula will apply. The 250 days qualification requirement for vacation purposes shall be eliminated and a more appropriate qualification schedule be implemented.

All agreements shall be amended to provide that employees who take vacation between October 1 and March 31 inclusive, shall be allowed one additional weeks' vacation. All agreements shall be amended to provide for vacation bonus of 15% of regular vacation pay.

All agreements shall be amended to provide that an employee leaving the service of his own accord or is dismissed for cause and is subsequently reinstated or rehired, shall not be required to requalify for vacation with pay. Splitting of vacation time shall be at the option of the employee.

GENERAL HOLIDAYS: All agreements shall be amended to provide for two additional General Holidays.

Payment for work performed on General Holidays, shall be at double the regular rate of wages in addition to the holiday pay, with a minimum of eight hours, and work in excess of eight hours, shall be at triple time.

Qualifications for Holiday Pay, shall be amended to provide "an employee who performs service in the pay period in which the holiday falls shall be entitled to holiday pay."

There shall be no substitution of General Holidays for those em-

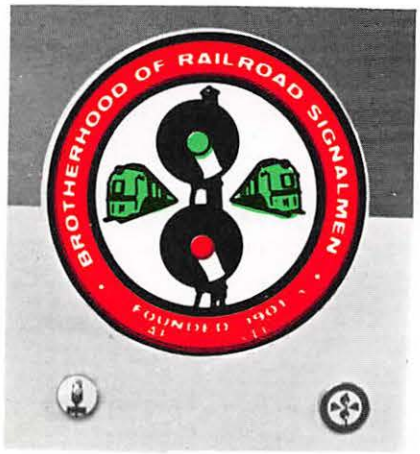
Cloth emblem is available with BofRS in white letters on red border, two locomotives and green over red searchlight signal.

Coasters (3" dia.) come in black and gold, or in white, red and green with BofRS emblem.

Playing Cards with the BofRS emblem are now available. These high-quality cards come in the conventional bridge decks, including jokers. Cards and emblem are in color.

Golf caps with the BofRS emblem in color are available in Small, Medium or Large with adjustable head band. These lightweight, net caps come in Red, Black or White.

The 8-volume signalman's training course covers the following subjects: 1—electricity, circuit symbols and nomenclature; 2—signal terms, relays, track circuits and meters; 3—automatic block signaling, time code control and electronics; 4—traffic control systems and power switch machines; 5—highway grade crossing warning systems and FRA RS&I tests; 6—remote control and automatic interlockings; 7—ctc machines and their operation; 8—maintenance of signal equipment.



Signalmen's decal (top) has adhesive backing so it can be applied to glass, leather, metal, etc. for BofRS identification on car windows, bumpers, luggage, hard hats, etc. The emblem is 4" or 3" in dia. It has a red border with white letters. The signal displays green over red. Below left is a metal **colorlight signal lapel pin** ½" in diameter with signal showing green over yellow over red on white enamel background. Signal and pin otulined in gold. Below right is ⅝" **BofRS lapel pin** identical to decal except letters and outline are in gold.

Red nylon windbreakers with elastic sleeve ends that fit tight to the wrists and with a drawstring at the bottom to pull tight to the waist come in three sizes: small (36-38); medium (40-42) and large (44-46). Two slash pockets and a cloth BofRS patch on the left front complete these men's jackets. The windbreaker is machine or hand washable in warm water.

A history of the Brotherhood of Railroad Signalmen has been written by the late A. E. Lyon, president emeritus, which covers the 75 years of the Brotherhood since its founding in 1901.

Master National Agreement Book has the basic provisions of national agreements negotiated with U.S. railroads and the BofRS. They are contained in a loose-leaf binder with 2-inch rings so there is room for additional material, such as local agreements. The 23 sections are: A—summary of wage changes; B—summary of other benefits; C—Washington job protection agreement of 1936; D—vacations; E—Union shop agreement; F—Holidays; G—Claim and grievance handling; H—Health and welfare; I—Force reductions; J—Employment security; K—Travel time and away-from-home expenses; L—Off-track vehicle accidents; M—Jury duty; Mc—Current agreement; N—Overtime; O—Camp cars; P—Apprentice programs; Q—Change of residence; R—Earnings deduction in discipline cases; S — Supplemental sickness benefits; T—Union dues checkoff; and U—Amtrak C-1, C-2; V—Seniority modification agreement.

The SIGNALMAN'S Store

PLEASE SEND ME THE FOLLOWING ITEMS:

.....Golf caps @ $4.50 each. ....R ....B ....W

.....Small .....Med. .....Large

.....Coaster (black and gold) @ 20¢ each.

.....Coaster (red and green) @ 25¢ each.

.....Cloth emblem @ $1.50 each.

.....Colorlight signal lapel pin @ $1.50 each.

.....BofRS red, gold lapel pin @ $2.00 each.

.....Decals @ 15¢ each. .....3 inch .....4 inch

.....Windbreakers—Red (nylon) @ $12.00 .....Small .....Medium .....Large

.....Decks of Playing Cards @ $3.00 each.

.....General Chairman & Local Chairman's Manual @ $3.00 each.

.....History of BofRS @ $9.95 each.

.....Signalman's training books @ $18.00 per 8-volume set.

.....Vol. 1 @ $2.50 each. .....Vol. 5 @ $2.50 each.

.....Vol. 2 @ $2.50 each. .....Vol. 6 @ $2.50 each.

.....Vol. 3 @ $2.50 each. .....Vol. 7 @ $2.50 each.

.....Vol. 4 @ $2.50 each. .....Vol. 8 @ $2.50 each.

.....Master National Agreement Book @ $7.95 each.

Minimum order accepted is $5.00. Please make check or money order payable to the **Brotherhood of Railroad Signalmen.** Send payment and order to BofRS at **601 W. Golf Road, Mt. Prospect, Ill. 60056.**

Amount enclosed $.....

Name.....Local No.....

Address .....

City.....State (Province).....Zip.....

ployees who are regularly assigned to work on Saturday and/or Sunday.

PRINTING AGREEMENTS: The Companies shall arrange for printing and distribution to each employee all Collective Agreements in the official languages and shall assume all costs related thereto.

AUTOMOBILE ALLOWANCE: Automobile mileage allowance to be increased to 30¢ per mile. The Company will assume the cost of any additional insurance required for the use of personal automobile. The Company will pay the cost of chauffeur licenses for employees operating Company vehicles.

BEREAVEMENT LEAVE: All agreements shall be amended to add: Brothers-in-law and Sisters-in-law and Grandparents. All agreements shall be amended to provide that when a bereavement occurs during vacation or on general holidays, bereavement leave will be granted in addition thereto.

BILINGUALISM: All agreements shall be amended to provide that: no position will be established or designated as being a position requiring a knowledge of the two Official languages without prior agreement with the Union. Any such position so agreed to, shall be paid a premium rate as negotiated by the Union.

VIA RAIL-PASSES: The policy of issuing passes on major railways be improved and extended to Via Rail Canada.

PICKET LINES: All existing Agreements, shall contain a provision that an employee will not be disciplined for refusing to cross a legal picket line which is recognized by the Union.

NEGOTIATIONS DURING TERM OF THE AGREEMENT: Article III of the Master Agreement dated July 20, 1976, shall be included in a subsequent Master Agreement negotiated as a result of this notice. Any rules and practices that are more favourable than those requested in this notice, shall be retained.

COVERAGE: Coverage clause of any agreement negotiated, shall provide that all employees who performed any service in the contract period, shall be entitled to all wages and benefits contained in that agreement.

TERMINATION AND RENEWAL: Each Collective Agreement covered by this notice, shall remain in effect for one year from the termination date of the previous agreement, and shall be subject to three months notice by either party for renewal, in accordance with the provisions of the Canada Labour Code.

Platt is secretary of ARU negotiating group

BofRS Vice President John E. Platt is secretary of the Associated Railway Union's negotiating committee. Ray Peer, Canadian National system general chairman is chairman of the ARU.

The ARU consists of the 17 unions representing 100,000 workers on 13 railways in Canada. The Brotherhood of Railroad Signalmen is a member of the ARU.

Notices have been served on the railways by the ARU and the effort is now to renegotiate existing two-year agreements that expire December 31, 1977.

CP Rail: **J. B. Haid,** signal foreman, Prairie Region, and a member of Winnipeg Centre Lodge 12, has retired.

Regional meeting planned for Edmonton in May '78

Brotherhood of Railroad Signalmen is planning to hold a regional meeting at Edmonton, Alberta on Saturday May 13, 1978. Although details are not available at press time, a program similar to that held in Toronto, Ontario on March 12, 1977 is planned. Canadian members are urged to mark their calendars and plan to attend the May 13, 1978 meeting in Edmonton. Details will be published in *The Signalman's Journal* as they become available.

Cancer is often curable.

The fear of cancer is often fatal.

If you're afraid of cancer...you're not alone. But some people are so afraid that they won't go to the doctor when they suspect something's wrong.

They're afraid the doctor might "find something." This kind of fear can prevent them from discovering cancer in the early stages when it is most often curable.

These people run the risk of letting cancer scare them to death.

American Cancer Society

If you won't read these 7 signals of cancer...

You probably have the 8th.

1. Change in bowel or bladder habits.
2. A sore that does not heal.
3. Unusual bleeding or discharge.
4. Thickening or lump in breast or elsewhere.
5. Indigestion or difficulty in swallowing.
6. Obvious change in wart or mole.
7. Nagging cough or hoarseness.

8. A fear of cancer that can prevent you from detecting cancer at an early stage. A stage when it is highly curable. Everyone's afraid of cancer, but don't let it scare you to death.

Signalman's Worksheet

Block Signaling Adjuncts

Double Filaments

Double filament lamps may be used in the signals. When the high wattage filament burns out, a lower wattage filament in the same lamp envelope displays a weak aspect. Thus, when a train comes within range of the signal, the engineer sees the weak aspect and may proceed as indicated. This eliminates a stop and enforcement of Rule 27. Trainmen are expected to report the weak aspect so the lamp bulb will be changed out.

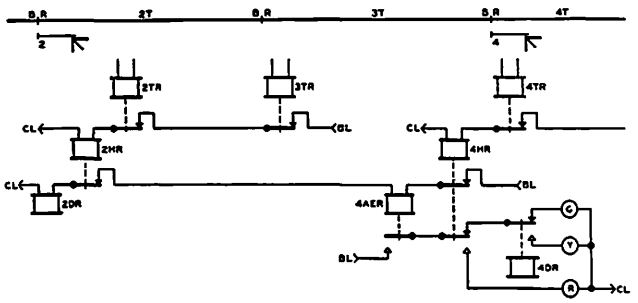
APPROACH LIGHTING

It is common practice on many railroads to have the signals lighted only when a train is in the vicinity of the signal which governs its movements. Approach lighting is done for two primary reasons: (1) to conserve electrical energy when a signal indication is not necessary and (2) to convey signal indications more distinctively when a train approaches a location having many signals.

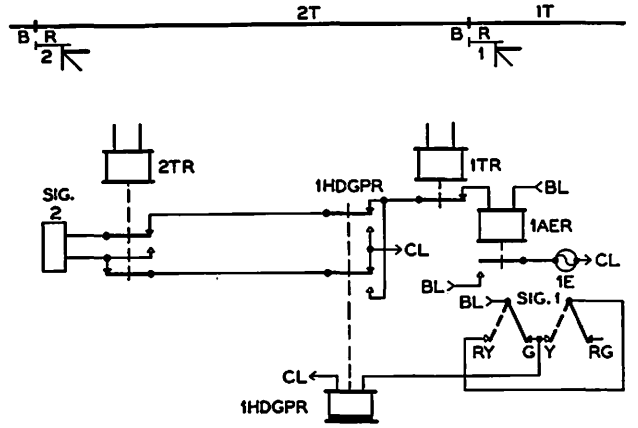
One of the simplest methods is to use an auxiliary relay at the battery end of, and in series with, a line controlled signal relay or mechanism.

Figure 509 shows a circuit with an approach lighting relay in series with the signal control relay. Should a train occupy track circuits 2T or 3T, signal control relay 2HR would drop, opening its front contact and removing energy from approach lighting relay 4AER. When 4AER drops, closing its back contact, lamp energy is applied to the signal.

Figure 509 shows a circuit with an approach lighting relay in series with a G-R-S searchlight signal mechanism. When a train arrives on track circuit 2T, the feed to 1AER is opened at 2TR front, and the back contact of 1AER closes to apply energy to signal 2 lamp 1E.



a. Approach lighting relay in series with signal control relay.



b. Approach lighting relay in series with SA signal mechanism.

Fig. 509-Typical applications of series line approach lighting relay.

SPECIAL PROTECTIVE DEVICES

SLIDE DETECTION

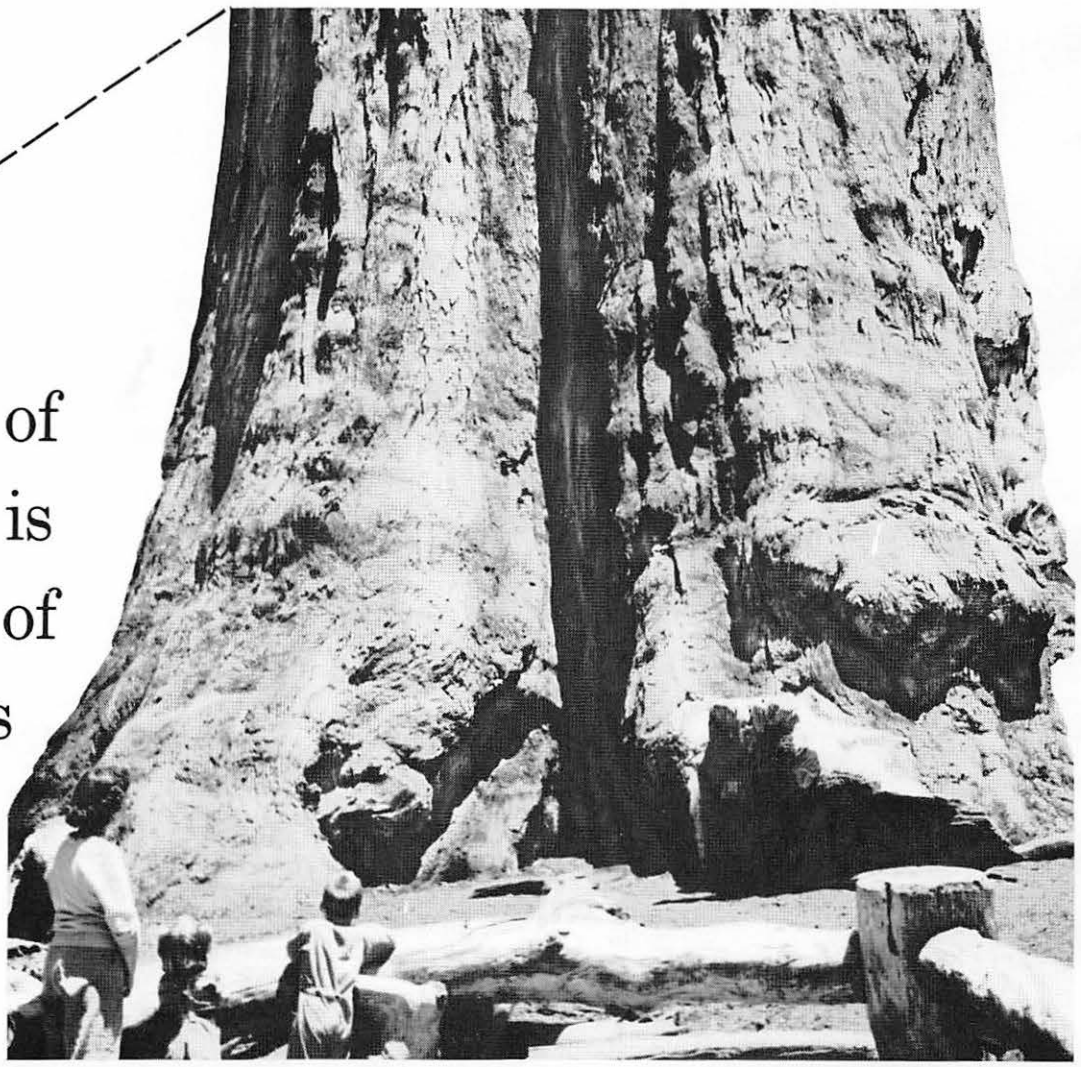
Slide detector fences are used for protection against derailment from landslides. They protect the right-of-way through cuts, at the base of rocky slopes, and in tunnels.

Fences are constructed and located according to local conditions in the slide area. They are usually installed in sections up to 400 feet long. The usual practice is to use a five-foot, pole-suspended fence mounted from one to two feet above the ground level to allow small stones to pass under without operating the fence.

A switch circuit controller is mounted on a steel mast between each fence section. The fence is loosely stapled to all intermediate fence posts to allow for lateral movement. When a slide occurs, the fence movement is transmitted through an operating pipe and trigger arrangement that unlatches a spring to operate the controller.

If the fence is located in automatic block territory, the controller may be included in the line circuit control. Outside automatic block territory, it may be used to control special slide warning signals.

Information and drawing furnished by General Railway Signal Co.



Each ring of growth is mute evidence of this monarch's success in meeting the test of time.

Kerite cable also withstands the obvious rigors of nature as well as unseen stresses of severe electrical service.

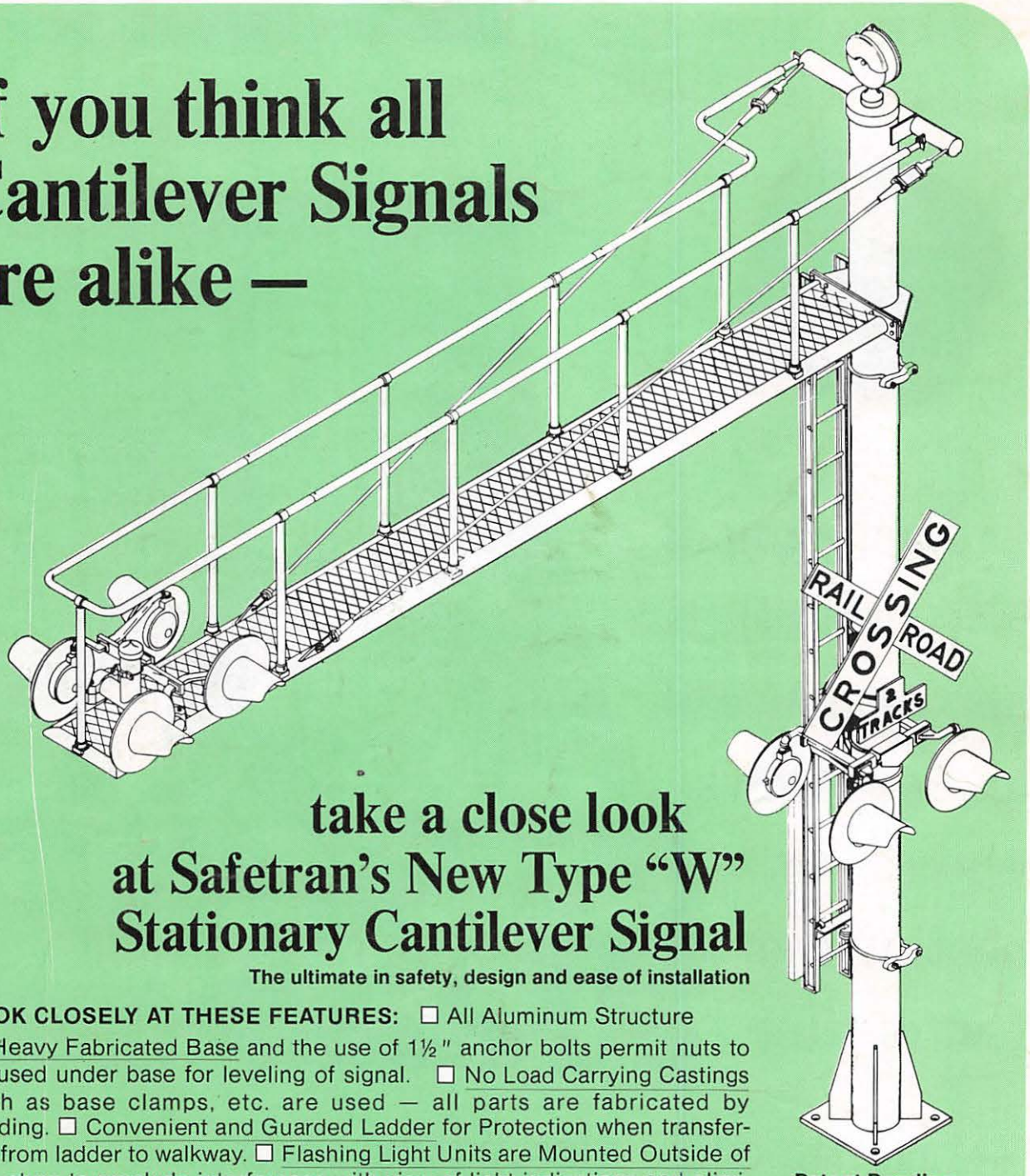
Specify Kerite and get the benefit of 116 years of proven performance.

The Kerite Company • Principal Offices: Boston; Chicago; New York; Philadelphia; San Francisco; and Seymour, Connecticut • Sales Representation throughout the United States. A subsidiary of Harvey Hubbell Incorporated.

MEMBER RPI Kerite CABLE

the cable that lasts... and lasts... and lasts...

If you think all Cantilever Signals are alike —



take a close look at Safetran's New Type "W" Stationary Cantilever Signal

The ultimate in safety, design and ease of installation

LOOK CLOSELY AT THESE FEATURES: ☐ All Aluminum Structure ☐ Heavy Fabricated Base and the use of 1½" anchor bolts permit nuts to be used under base for leveling of signal. ☐ No Load Carrying Castings such as base clamps, etc. are used — all parts are fabricated by welding. ☐ Convenient and Guarded Ladder for Protection when transferring from ladder to walkway. ☐ Flashing Light Units are Mounted Outside of Structure to preclude interference with view of light indications and eliminating phantom indications from reflection. ☐ Centered Walkway eliminates twisting and deflection of arm when aligning light units. ☐ Open Type Walkway provides sure footing and reduces buildup of snow and ice. Walkway is integral part of arm -- no assembly is required. ☐ Meets all AAR, and AASHO Standards and Requirements. ☐ All Safetran cantilevers and bridges are certified by independent Structural Engineers. ☐ Easy and Quick to Install — Arm bolts to main mast.

Patent Pending

The Type "W" is available in all arm lengths thru 26 feet. For Signals with arms in excess of 26 feet ask about our Type "WNR". Also, custom design Cantilevers and Bridges for Wayside Signals are available.

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